

NATIONAL FISHERMAN

JANUARY

1959



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The Lookout

Standardizing Boat Design

Standardization of fishing vessel design was proposed at a recent Gloucester (Mass.) Fisheries Commission meeting by member Capt. Lawrence McEwen. McEwen suggested that if the industry would agree to standardized design of fishing craft, the cost reduction would be considerable.

The proposal stemmed from the failure of last year's requests for Federal funds to aid the New England groundfish industry.

The proposed Federal Fisheries Act of 1958 sought four primary benefits: a subsidy to equalize the price of fish here with that imported from foreign countries; a loan program for improving and modernizing fish processing plants; a system of insurance claim reporting and inspection; payment of the difference in the cost of constructing a vessel in this country and the "fair and reasonable estimate" of the cost of constructing the same vessel abroad.

This year, the Commission's requests have been simplified to cover loans to improve fish processing plants, and to either allow the groundfish industry to take advantage of lower building costs abroad, or have the U. S. pay the difference in the costs.

The Canadian Fisherman's Loan Program for fishing boat construction has proven desirable and effective. A building subsidy of \$165 per gross ton is granted for boats built in conformance with Government approved designs.

The result of this program has been the upgrading of boat design, with plans drawn by competent engineers. Progress inspection of construction work is required and a better quality boat is produced at less cost.

The Canadian program is handled by the individual provinces, and to be effective in the U. S., a building subsidy program should be sponsored and administered by the coastal States involved, with the Federal Government providing the financial backing.

The State-level approach would provide a closer understanding of industry needs, and would obviate the necessity of a Federal program that would be difficult to put into law because of the apathy of Congressional members from inland States.

Upon a building subsidy similar to that in Canada, a typical 90' dragger of 120 tons would call for a subsidy of \$20,000. With such a subsidy, plus savings accruing from standardized design, the costs of building in this country would be competitive with those in foreign countries.

NATIONAL FISHERMAN

The Fishing Industry Magazine

Vol. 39 No. 12

January 1959

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P. G. LAMSON
President

GARDNER LAMSON
Publisher and Editor

D. M. STRICKLAND
Managing Editor

Publication Office: National Fisherman, Goffstown, N. H.—Hyacinth 7-4821
Formerly Atlantic Fisherman, Established 1919. Published monthly by Atlantic Fisherman, Inc.



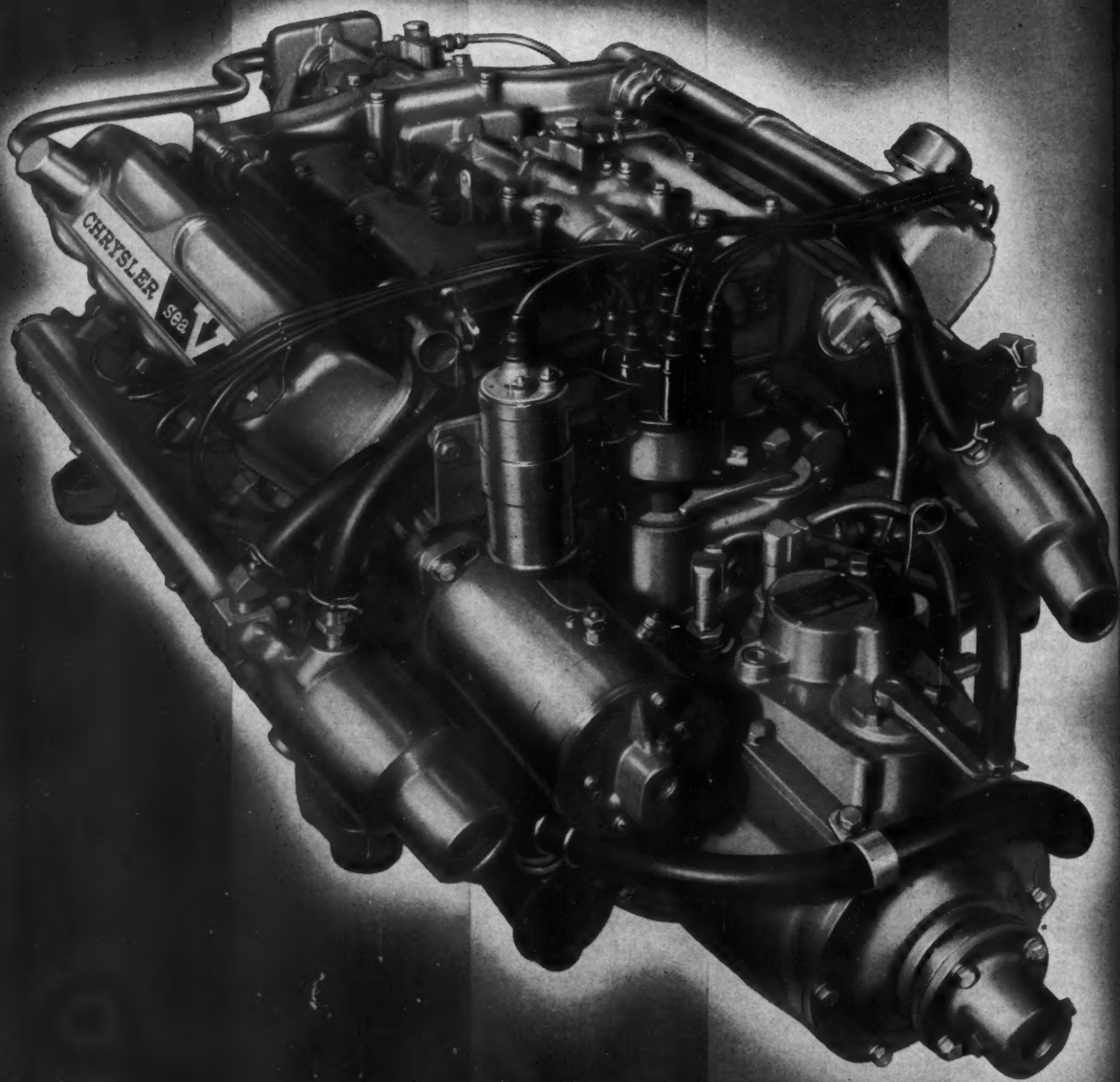
Member: National Business Publications and
Business Publications Audit of Circulation



Pacific Representative: Murray Bothwell, 234 E. Colorado St., Pasadena 1, Cal.—Ryan 1-9155

Accepted as Controlled Circulation Publication at Manchester, N. H.

Yearly subscription rates: United States, \$4; Foreign, \$6. Single copies, 50¢



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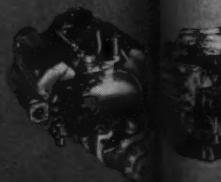
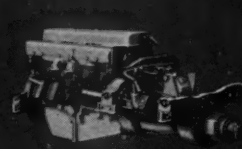
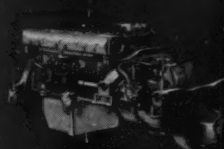
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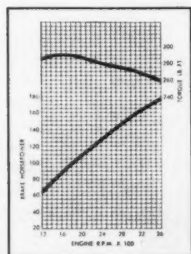


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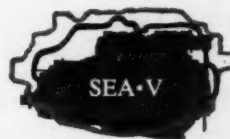
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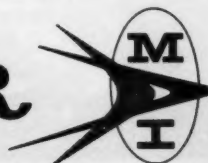
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► Safety Suggestions

The Bureau of Commercial Fisheries New England safety program staff, continuing its examination of unsafe conditions found on large and medium otter trawlers, extended its list of suggestions for the elimination of hazards and conditions contributing towards the present accident rate. The suggestions could save both lives and money.

Installing a snubbing chain on all towing blocks would prevent the blocks from flying inboard when trawl wires are released. It has been recommended that this be made mandatory on all large trawlers.

A pilothouse winch control switch for electric-driven winches should be installed within easy reach of the man in the pilothouse for use in emergencies only. This would provide a double check on the winch operator and introduce an extra safety factor to a potentially dangerous operation.

Vent pipes should be required for all fuel-filling lines to prevent overflow of fuel into the bilges.

Inspection standards for all commercial fishing vessels should be subject to official inspection and maintenance standards, with certification by marine surveyors. Through industry and insurance companies cooperation, standards can be developed for various classes of boats, based on tonnage, type of fishing, or combinations of both factors.

Major subjects would include hull construction, engine installation, deck and fishing equipment condition and layout, fire fighting equipment, safety appliances, life saving equipment, and periodic inspections.

► Additions to Fleet Increase

Fishing craft that received first documents during the first nine months of 1958 totaled 565 vessels or an increase of 96 boats compared with the same period of 1957. Vessels which received first documents from the Gulf States (double the 1957 figure) made up 41 percent of the 1958 nine-month total of 231. The South Atlantic (110) was second with a gain of 19, while the Pacific Coast (96) followed with 7 more than the previous year.

During September there were 65 vessels that received first documents as fishing craft. Compared with the same month of 1957 that was an increase of 17. The Gulf led with 33 vessels and the South Atlantic was second with 16. The Pacific Coast ranked third with 7.

► Boat Owner's Meeting

A substantial majority of the National Fisheries Institute Boat Owner's Steering Committee were present at the meeting held recently at Washington, D. C.

Charles Jackson, secretary of the Committee, was instructed to confer

FISHERY PROGRESS

with Chairman Warren Magnuson of the Senate Committee on Interstate and Foreign Commerce with regard to legislation he sponsored in the last session of Congress, which would make fishermen eligible to receive hospitalization and medical care in Public Health Service Hospitals.

Jackson was also instructed to follow through with the Coast Guard in request that a fishing vessel owner advisory committee be formed to work with the Coast Guard on matters pertaining to inspection and regulations.

► Haddock Stock Fluctuations

Fluctuations of haddock stocks on the North Atlantic banks may lie with the variable ocean currents which sweep the haddock spawning areas. Eggs and larvae may thus be carried off into areas of great depth and perish.

Although one female haddock may release from 100 thousand to 2 million eggs, chances of growing to adult stage is risky.

Fluctuations in the supplies of haddock on the St. Pierre and Grand Banks have for some years been accurately predicted by scientists at the St. John's Biological Station.

At the present time the St. Pierre Bank is going through a period of low supply, but fishing continues to be good on the Grand Banks, and there is evidence of a new brood coming along which could maintain the fishery at a satisfactory level.

Both St. Pierre and Grand Banks depend on new year-classes of fish to replenish the populations and when, for various reasons spawning is unproductive, a decrease in the stock can be foreseen years ahead.

► New Geneva Conference 1960

The Sixth Committee of the United Nations agreed on December 4 to recommend to the General Assembly that a second international conference of plenipotentiaries on the law of the sea be convened in July or August, 1959, in Geneva.

The purpose of the second conference will be to consider the matters left unsettled by the last Geneva conference, namely, the breadth of the territorial sea and fishery limits.

The final recommendation of the Sixth Committee was the same as the proposal of the U. S. and 10 other nations. This action was followed by a contested vote on an amendment to the U. S. resolution

supported by the Soviet bloc and a majority of Latin American republics which would have postponed any action and consideration of the matter until the next session of the General Assembly. The amendment was defeated.

The report for the second conference in Geneva in July or August 1959, was considered by the General Assembly. Mexico and other members offered an amendment to postpone the date until the "earliest convenient date in March or April 1960." This amendment was adopted.

The fishing industries of countries who proposed the July-August date are fearful that the long time lapse will encourage others to follow the example of Iceland and unilaterally establish their own fishery limits.

► Oyster Study Begun

A joint study of the United States Food and Drug Administration, Bureau of Commercial Fisheries, and the oyster industry to obtain basic and practical data on the biological, chemical and physical characteristics of the oyster has been initiated according to Assistant Secretary of the Interior Ross Leffler. The research will be conducted on the handling and processing of fresh, shucked oysters.

The data can be used as the basis for improving packing and marketing practices and for the evaluation of present Food and Drug standards of identity. The necessity of such a study became evident as a result of court cases concerning the amounts of solids in a given unit of oysters.

Each government agency and the industry is supplying a technical employee to participate in the research under the direction of Dr. Benjamin Willier of Johns Hopkins University, selected as a disinterested scientist. Work has begun at the Virginia Fisheries Laboratory Gloucester Point, Virginia.

► Fish Imports Down

Imports of haddock, cod, hake, pollock, cusk, and ocean perch filets, including blocks, during November 1958, totaled 7.4 million pounds—a decline of 3.5 million pounds (32 percent) compared with the same month of last year.

Although Canada (4.4 million pounds) dropped 44 percent below the 1957 mark for November, it still ranked first in volume, accounting for 59 percent of the months total imports.

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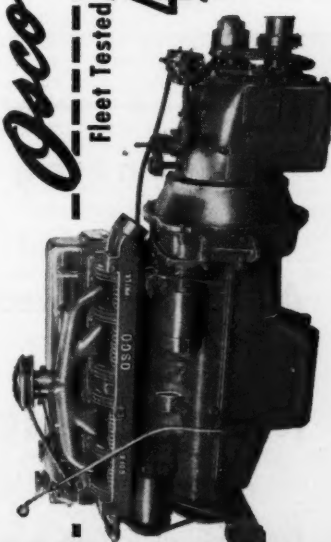
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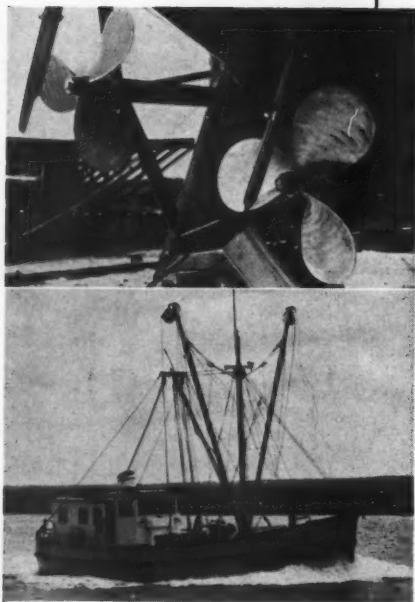


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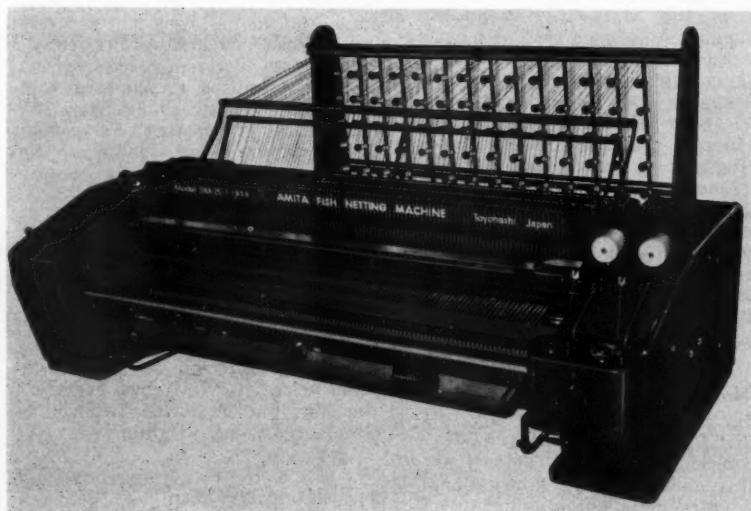
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Pacific Oysters Raised From Imported Seed

Lee J. Wiegardt traces history of industry and cites needs for continued development*

Pacific Coast oysters go back as far as history of the West is recorded. The earliest pioneers and writers pointed out the importance of the oyster in the Indian diet. These oysters were the native oyster which were later to become known as Olympia oysters. In the last half of the 19th century, schooner loads of these oysters were shipped to San Francisco.

From their very first commercial venture, the small native oysters followed a very colorful and romantic course. The first schooner to try a direct trip to San Francisco, the *Robert L. Bruce*, was burned by an angry cook. All cooking utensils were destroyed before he burned the hull leaving her crew stranded. The sales of these oysters built up to 100,000 bushels from the Puget Sound area.

The small native oysters or Olympias had an uphill battle. During the year of 1880 mortality almost wiped Willapa Harbor, Washington clean. Sets replaced this loss and again the oysters failed. The second decade of the 20th century saw the last of the commercial operations. Washington's Puget Sound went into the highest type of oyster culture ever employed in this country. Elaborate dikes and planting areas were built, and the industry thrived. Then pulp mills moved into the bays, and today pollution has seriously depleted the Olympia oyster industry.

Eastern oysters were first railroaded to the West Coast in commercial quantities in 1895. A boxcar load of seed was laid into Willapa Harbor for \$1700. During one year 120 carloads of seed arrived from the East. All went well at first, then a gradual mortality crept into the beds. In 1919 the loss approached 100%. Oystering almost ceased to exist in Willapa Harbor. The Eastern oysters were gone and the natives were hardly profitable.

First Plantings of Japanese Seed Oysters

The first imported Pacific oysters were planted into our bays in 1929 and 1930. The success of the first plantings was hard to believe. Our company planted their first seed from Japan on Easter Sunday, and harvested it on October 5. These five-month-old oysters ran 540 to a two-bushel sack. To raise these same oysters today would take three years.

Today the bulk of Pacific oysters are raised from seed imported from Japan. This seed is caught in the late Summer in Japan and is imported to the Pacific bays in April. It crosses the ocean in two-bushel wooden boxes as deck cargo. These boxes are delivered to the Pacific bays for around \$8.75. The contract calls for a minimum of 18,000 live oysters per box; however, many will contain 30,000.

Between the seed boat and harvest, many things happen. Starting out with at least a potential 150 gallons and generally 200 gallons in a box, one would expect great things. A yield of 60 gallons is the extreme exception and 25 gallons is considered a very profitable crop; however, when the seed imports are weighed against the gallons opened we find that year in and year out on an industry wide basis, we are getting 12½ gallons per case.

Periodically we get a set of commercial quality in our own harbors. Such was the case during the war years. This was the only time we have had a local set of commercial value three years in a row. For an operator hiring all labor it is a fight to beat the cost of imported seed. In many cases he finds himself way behind the imported seed price. Local oyster set makes for an irregular size bed run because of the yearly addition of new oysters. The big problem is that you not only get it where you want it, but also where you don't want it.



"Ralph Hayes", 70' oyster harvesting dredge in Humboldt Bay, Cal. is operated and owned by Coast Oyster Co., Eureka, Cal.

Work of Pacific Oyster Association

The Pacific Coast Oyster Growers Association fulfills a number of needs for its members. The biggest task undertaken by the group is the acquiring of top quality oyster seed from Japan. The postwar years have changed the buying conditions so that now buying and selling is on a semi-competitive market. A system has been established for buying and quality inspecting the seed in Japan, which in the past few years has proven itself.

The pulp industry has been a thorn in the Puget Sound oyster industry. The only way possible for the oyster to be compatible with pulp, is to completely clean up the liquor before it is discharged into the bays. This is a lot easier said than done. Burners are expensive, and the pulp people have been reluctant to live up to their promises.

During the last year of Governor Langlie's administration it was finally realized that Puget Sound was losing its oysters and prompt action was necessary. The Pacific Coast Oyster Growers Association has been the backbone of the pollution battle. Mills have been given definite time limits to properly handle waste. The Washington State Fisheries Department is pushing research to find out more about pollution.

(Continued on page 27)



Inspecting the Allyn, Wash. Oyster bed of Coast Oyster Co., Eureka, Cal. Left to right: Dr. Imai, Toboku University, Sendai, Japan; Charles Woelke, biologist, Washington State Dept. of Fisheries; Verne Hayes, manager Coast Oyster Co.; and Joe Engman, Coast Oyster Co. bed manager, Allyn.

* Lee J. Wiegardt is past president of Pacific Coast Oyster Growers Association and official of Wiegardt Brothers, Ocean Park, Wash.

Vessel Safety Programs Unequal to Hazards

Much needed safety efforts lack coordination and acceptability

THE open sea over the North Atlantic continental shelf is the primary workshop of the New England fishing industry. It is a fearsome environment presenting a wide variety of hazards, many not encountered in land-based industries. Despite man's progress over the centuries in coping with these hazards, the sea still on occasions takes a frightening toll of life, limb and property.

It has been estimated that one out of every 1,000 fishermen on commercial vessels loses his life as a result of a marine accident. The figures were compiled over an eight-year period by the U. S. Bureau of Labor Statistics. In contrast, the loss of life ratio for manufacturing workers is one out of 8,400. The ratio for seamen on vessels inspected by the Coast Guard is one in 1,800.

Can safety programs cope more successfully with these hazards and reduce further the losses, damages and injuries which arise from them? The question instinctively draws forth an affirmative answer. Everyone favors a reduction in hazards and an increase in safety. But attainment of the goal is woven in with the solution of other vexing problems in the fishing industry.

Hazards in fishing may be due to environment, vessel, equipment or personnel. To the usual dangers from wind, wave and storm on the open sea may be added hazards innate to geographical location. Proximity to the area where the Gulf Stream and Labrador Current meet induces frequent fog. Tropical hurricanes which veer eastward and spare New England strike the fishing grounds. The northerly latitudes of the grounds increase the severity of weather in the winter months. Transatlantic shipping lanes cut through the area. Drifting logs and wreckage present navigational hazards.

The mechanics of "shooting" the trawl and hauling the catch are replete with hazards. The heavy loads, drawn by cable through bollards (pulleys) from the engine-driven winch demand both strength and alertness. And all the time the deck may be rolling and slippery.

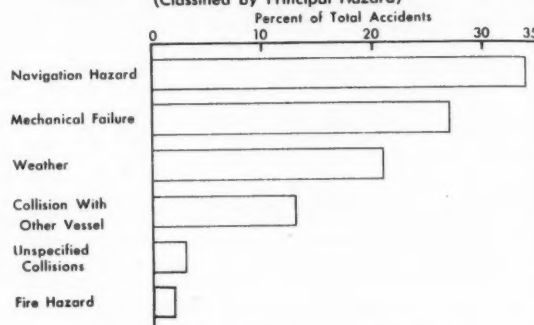
The human hazard cannot be underemphasized. A seaworthy vessel can be lost by a crew which is not seaworthy. Incentives are lacking to attract the ablest types of crews. Granting that the life of a fisherman is a rugged one, observers nevertheless sadly note that ignorance, negligence and irresponsibility all too often guide the conduct of crew members towards each other and towards their equipment.

Accidents arise in part from inadequate guard against these hazards. These accidents may result in damage or total loss to the vessel and its equipment. They may lead to injury, loss of limb or death to the individual. A recent Boston University study of insurance in the fishing industry (Special Scientific Report No. 241) gives statistical information on these accidents.

Over half of the claims of damage to insured vessels affect hulls, including total losses, with diminishing frequency of damage to machinery and equipment, motor, electrical apparatus, winches and fishing gear. In order of frequency, the principal hazards causing these accidents are cited as navigation hazards, mechanical failure, weather, collisions and fire. There are strong presumptions that errors of the crew were contributory if not prime causes in many of these accidents.

Eighty per cent of personal insurance claims are for injury, 18 per cent for sickness and 2 per cent for death. This distribution is somewhat distorted by the fact that the law permits personal claims by fishermen for causes not directly associated with their tasks aboard ship. There is a seemingly endless variety of types of accidents on and off the vessel. Among the more frequent are falling, slipping, getting caught in the winch or a bollard, being

ACCIDENTS TO NEW ENGLAND FISHING VESSELS, 1950-54
(Classified by Principal Hazard)



Source: Special Scientific Report-Fisheries No. 241, U. S. Fish and Wildlife Service.

struck by falling or swinging objects, infections from fish bones, knife cuts, etc.

Insurance serves to even out over time and among insuring vessel owners the financial impact of losses and accidents. It cannot reduce loss, or restore the lost vessel or life. Some contend that it may lessen the effectiveness of safety programs in that knowledge of its coverage may induce a false sense of security, relax care and stimulate questionable claims.

Study indicates that during the 1950-1954 period about two-thirds of the vessels were covered both by hull and by protection and indemnity insurance. Premiums are tailored to the individual risk as determined by past performance and surveyors' inspections. Even with deductible clauses, the frequency of petty claims and the impact of total loss claims have resulted in discouragingly high loss ratios for some insurance companies. Compensating upward adjustments of premiums have created an increasing burden to insuring operators.

The situation is particularly critical with respect to protection and indemnity insurance. Existing law makes the vessel owner responsible to his crew, whether aboard ship or ashore, from the signing on for service to the formal signing off. Furthermore, the vessel owner is deemed liable without limit for injuries which are due to negligence or unseaworthiness. One hears the feeling vehemently and widely expressed that because of these provisions, ethical standards have been lowered, a large number of injury and illness claims have no relation to occupational hazards and many claims are inflated.

Desire for greater safety is widely expressed, but programs to effect it lack coordinated effort and mutually acceptable lines of approach. Insurance companies and surveyors try to set up standards for insurability. Banks insist upon insurability as a prerequisite for loans. Unions use every effort to obtain safer working conditions for their members. Vessel operators, within their financial ability, try to adopt and install safety devices. The Coast Guard Service tries to supplement its minimum of authority over fishing vessels with safety guidance.

The Fish and Wildlife Service operates a revolving loan fund to aid the repair, maintenance and replacement of fishing vessels and gear. It conducts a safety program through research and demonstration to acquaint the industry with available safety devices and practices. It sponsored a Boston University insurance study and has this year awarded a contract to Ebasco Services, Inc., engineering consultants, to study the development of a safety program for the fishing fleet of New England.

Existing laws applicable to most fishing vessels give the Coast Guard Service little authority other than to

(Continued on page 31)

* Courtesy of Federal Reserve Bank of Boston, from whose New England Business Review the material in this article was excerpted.

Aluminum Purse Seine Boats Use Hydraulic Gear

New type, all-welded aluminum purse seine boats, built by RTC Shipbuilding Corp., Camden, N. J., have decreased weight and special hull form to give more buoyancy and stability. They are equipped with special rubber fenders and use hydraulic net lifting machinery.



The RTC Shipbuilding Corp., Delaware Ave. and State St., Camden, N. J., has after years of research and experience in the design and fabrication of all types of menhaden fishing craft, presented to the industry one of the most able of seine boats, the all-welded aluminum boat.

One of the largest menhaden fleets, that of the Fish Products Company owned and operated by Otis Smith of Lewes, Del., was one of the first to switch from wooden to steel steamers. Smith later made the same change in his seine boats. Today the fleet uses airplanes to locate the menhaden, sonar to sound out the school, and two-way radios to keep in touch with the planes and headquarters ashore. The boats carry net handling equipment and 85 hp. engines.

About two years ago Smith developed an interest in replacing his steel boats with aluminum. With the weight saving, he felt he would be able to add aluminum net-

handling equipment and Alcoa was willing to show them how. Three welders were sent to Alcoa's Job Shop in New Kensington, Pa. for training and Don Hankin, RTC's chief engineer held several conferences with Alcoa personnel. Metal for the two boats was supplied by Whitehead Metals Products Co., an Alcoa distributor. Smith, impressed by the boats' performances ordered 76 more, totaling 2 each for 39 steamers.

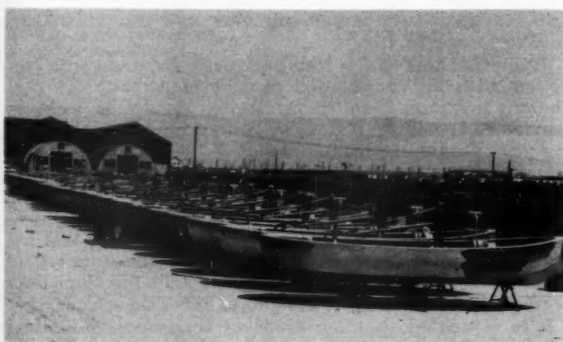
The decreased weight and a special hull form are designed for more buoyancy, stability and seaworthiness as a rough water boat. The location of deck and height of gunwales, plus the special shape of the gunwale bar and the net slide allow the crew to work more easily and safely and prevent snags and tears while setting the net.

The propeller and rudder are totally enclosed in a tunnel and cage arrangement to prevent the net from becoming entangled when the fish are being raised.

Attention has been given to the bow and stern form, resulting in a boat that tows well without tipping or swamping, and one that will lay to the steamer when bailing.

The boats are built in the RTC shop using production line methods, and special welding and fabricating techniques, which enable the firm to reduce the purchase price although material costs are higher.

(Continued on page 28)



New aluminum purse boats owned by the Fish Products Co. and Seacoast Products, Inc., Lewes, Del. equipped with hydraulic net lifters.

handling equipment to the otherwise overweight boats. Alcoa—Aluminum Company of America—representatives discussed the possibility with him. At first Smith was skeptical about aluminum's ability to do the job, but he agreed to have three of his men trained in aluminum welding at Alcoa's Job Shop. A year later Smith made his decision and ordered two boats, which were to be made at the RTC yard. On the performance of those boats, the Fish Products Company put to sea this year with 78 aluminum seine boats. Each one, though 3,000 pounds lighter than previous steel models, uses 4,000 pounds of sheet, plate and extrusions.

John Carson, president and E. G. Brownlee, vice-president of RTC Shipbuilding Corp. had built several successful steel steamers and seine boats for Fish Products Co. but they had never built a boat of aluminum. They were



Installing Goodyear Tire & Rubber Co. fenders on aluminum purse fishing boats. Rubber fenders are bolted on the stern and sides of the boats to reduce noise and damage. Tunnel and cage arrangement protects nets from rudder and propeller.



"OWNER'S PRIDE" is a 70' shrimper built for Chris Olsen and Gerald Haatajax of Fort Myers Beach, Fla. by the General Marine Boatyard, Inc. Fort Myers Beach. She is powered by a D342 Caterpillar Diesel.

Double Rigger Launched At Florida Boat Yard

Owner's Pride, a 70-foot shrimp trawler built at General Marine Boatyard, Fort Myers Beach, Florida was christened recently prior to a shakedown cruise in the Gulf of Mexico. She was built for Chris Olsen and Gerald Haatajax, of Fort Myers Beach.

Haatajax will captain the *Owner's Pride* which is a double rigger featuring a large pilot house.

A D342 Caterpillar Diesel working through a 3.1 Snow-Nabstedt reduction gear and hydraulic clutch powers the *Owner's Pride*, with the Columbian Bronze propeller swinging on a 3-inch shaft. Two Onan main generators have a Lister Diesel as auxiliary. Two welded steel fuel tanks with a total capacity of 6,000 gallons flank the main engine. Two galvanized water tanks in the lazarette hold 700 gallons.

A Hathaway model 72823 winch wound with cables is on deck. McKissick towing blocks are used with the double-rig gear. The boat is also equipped with a One-Mile-Ray searchlight, a Rayline airhorn and Perko running and trawling lights.

Two-inch cypress planking and fir fastened with 3-inch galvanized nails are used. Frames are 2 x 4-inch oak on 12-inch centers. Ceiling is of 2-inch pine, as is the transom. The shaftlog and deadwood are also of pine.

Gerald Haatajax is a native of Cooper Harbor, Michigan, and attended Michigan College of Mines and Technology at Houghton. A trip on a shrimp boat, with his brother whom he was visiting at Fort Myers, convinced him that fishing was what he wanted to do, and he moved to Fort Myers Beach four years ago. He had done some fishing out of Cooper Harbor on Lake Superior.

Olsen was born in Brooklyn and brought up in Norway in the fishing industry. He returned to the United States at 15 and started fishing out of New Bedford. He was a skipper at the age of 17 and had his own boat on the Grand Banks at 21. He has run a boat ever since.

He served as a confidential observer for the Navy as a civilian with a lieutenant's rating and received a letter of citation from Admiral Adolphus Andrews, Chief of the Eastern Frontier commending him on sinking a German submarine 80 miles out of New York.

Before Olsen came to Fort Myers beach last fall from Brooklyn, N. Y., he was a partner in New York of Arronson and Berman. He formerly owned three corporations; the Carol-Jack, whose ship of the same name fished off the New England coast as did the *Florence B.* out of New Bedford, of the *Florence B* Corporation and the *Miriam A.* belonging to the Miriam A. Corporation. Olsen fished for scallops and groundfish in New England. He is also owner of the *David B.* which operates out of Fort Myers Beach.

PACIFIC COAST

Excellent California Sardine Season Closes

Return of the Pacific sardine to California waters is now an established fact, with a catch of 95,000 tons recorded as the season closed on December 24th.

While the catch is below the average in the late 1930's and early 1940's, it is far above the 36,000 tons of 1957 and small catches of earlier 1950's.

Biologists of the Fish & Wildlife Service say they feel the warmer temperatures of waters off the coast may have been a deciding factor in the return of the species.

So while the California cannery this year have packed over 2 million cases, about half remain unsold. The effect on the fishermen has been to reduce prices from \$60 a ton at the start of the season to \$50 a ton in October.

There is no guarantee the market would remain firm even if lost markets were recaptured. Scientists working on a system of forecasting the trends say northwest winds cool or fail to cool the local waters, depending on their intensity. But since wind flows can be predicted only weeks or months in advance, it is impossible to predict what the fishing season will be like.

Landings at San Diego, California

According to the Fish & Wildlife Service, San Diego's fishing fleet during the period January 1 to December 10 landed 67,070 tons of seafood. This was 3,000 more tons than were landed in the same period a year ago.

California Fish Research Pays

Tuna fishermen no longer guess where the tuna will be running, since experts at the California Department of Fish and Game at Sacramento now can tell where the elusive tuna will run.

Studies of sea water temperatures and currents, together with the cooperation of fishermen made the predictions possible. Detailed information fishermen gave on previous catches helped solve the problem of locating the most productive fishing areas.

Department scientists predicted that albacore school groups would sweep coastward considerably farther north than in any previous year, bypassing a 100,000-square-mile area that has been highly productive for the last ten years. They pinpointed the area in which the tuna would appear and fishermen were ready outside the San Juan Seamount to harvest the first run of the 1958 season.

It is estimated that hundreds of thousands of dollars were saved, since commercial fishermen could remain in port until notified where the tuna would be.

California Canned Tuna Pack Sets Record

The California 1958 canned tuna pack passed 10 million standard cases during the week of November 10. An estimated 10.3 million cases of tuna were packed through November 15 from 207,200 tons of tuna received by the canneries. This sets an all-time annual record and was 700,000 cases above the 1956 annual record pack.

California cannery tuna receipts for January-October 1958 totaled 201,000 tons—an all-time record high, exceeding the previous high ten-months receipts in 1956 by 22,000 tons or 12 percent. A record high tuna purse-seine catch of 39,000 tons accounted for the new high in cannery tuna in 1958. Cannery tuna receipts in 1958 also exceeded any previous full year's total except for 1956 and 1954.

California Crab Fishing Starts

The deadlock which held up the Eureka crab fishing industry was broken early this month with all major buyers, except one, signing fishermen's market orders.

Reported signing orders for fresh crab at 14 cents per pound and 13½ cents at Crescent City are the West Coast Fisheries and California Shellfish Co. of the Del Norte port and the Hunter-Foland Meredith Fish companies and Halibut Producers Cooperation of Eureka.

The situation had been deadlocked by the unsigned market orders which had been tendered by the Fishermen's Marketing Assoc. prior to the opening of the season December 15. With good weather prevailing the crab fleet from Eureka put to sea immediately.

California Fisheries Association Meets

According to a bulletin issued by the Southern California Fisheries Association of Los Angeles, the January meeting of the organization was to be held on the 13th. One of the important subjects to be discussed at this meeting was that of weights and measures of fish in containers. A report on the matter was to be made by Association Attorney James H. Mitchell. A progress report on sustained advertising through enactment of a State Fish Marketing Act was also to be given.

The bulletin also reported that fisheries training course for adults has been scheduled through the cooperation of the adult education department of the Los Angeles City Schools, the fish industry and the U. S. Bureau of Commercial Fisheries. A series of eight meetings have been scheduled and will include such subjects as value of the fishing industry, world-wide distribution, commercial fishing gear, fish preservation and others.

Tunaboat Assoc. Holds Annual Meeting

Harold Cary, manager of the American Tunaboat Association reports that the association held its annual meeting in Roseville, Cal. on December 15, with 25 directors appointed. The directors were then to select a president to succeed Machado Medina who headed the organization during 1958.

Cary reported also that four bait boat tuna clippers have been converted into purse seiners recently. They are the *Southern Pacific*, owned by Lou Brito and now on the fishing banks for her first voyage as a seiner; the *Challenger*, *Santa Helena* and *Ruthie B*.

The *Challenger*, which is being converted into a seiner at the Campbell Boat Yard is to be renamed the *Determined*. It has been purchased by Norman Mezin and will fish for the Star Kist cannery out of San Pedro.

The *Santa Helena*, originally was a seiner but was converted into a bait boat seven years ago and is now going back to her original status. She will fish for Van Camp. The *Ruthie B*. under conversion at a San Diego shipyard, will fish for Star Kist in South American waters.

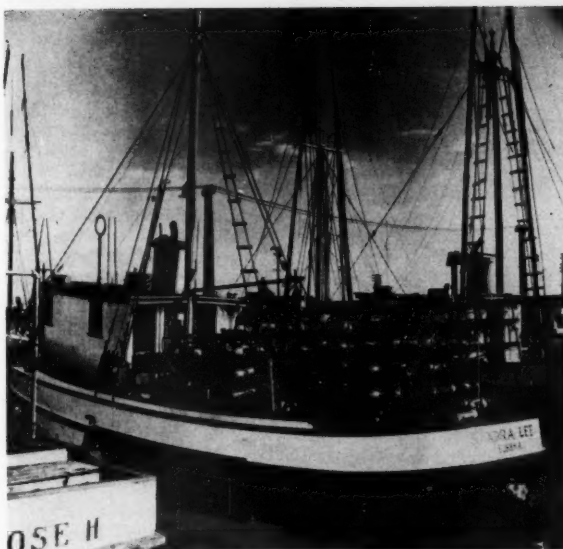
Returning to port for the Christmas holidays were the clippers *Bernadette*, *Charlene*, *Mauritania* and *Columbia*. There are 10 clippers undergoing repairs at the Campbell yard.

Montgomery Phister

Montgomery Phister, one of the most respected and loved leaders of the American fishing industry died in Terminal Island on Christmas day.

He was 61 and was vice-president and secretary of the Van Camp Sea Food Co. He had served as a member of the Fishery Products Committee since the beginning of the Division and was its Chairman in 1958.

Mr. Phister was a past president of the Calif. Fish Cannery Assoc.; chairman of the American Bar Association's Committee on Fisheries and Territorial Waters; a member of the California State Committee on Natural Resources and a member of the advisory committees to the International North Pacific Fisheries Commission, the Inter-American Tropical Tuna Commission, and the Pacific Marine Fisheries Commission.



Loaded and ready to sail when the signing of fisherman's orders was announced was the crab boat "Sandra Lee" shown here tied up at her berth at the Eureka Boat Basin.

Oregon Fisheries Education Courses

Oregon is taking full advantage of the Fishery Education Act and according to information received from Dr. E. W. Harvey, chief of the Seafood Laboratory, Oregon State College, Astoria, courses were being held during December in fish care and sanitation, piloting and seamanship and engine and boat equipment care.

New courses to start this year cover seafoods marketing and economics, business management for fishing boat operators, supervisory training for cannery personnel, technical fishery problems for management personnel, new methods and materials, seafood cookery and seafood service.

Certified instructors are provided from the local community. Among those participating are: Harold Thom and John McLoughlin, New England Fishing Co.; James Kindred, Astoria Seafoods Co. and John McGowan, Jack Daly and William Larson, Jr., all of Columbia River Packers Assoc.

Oregon Tuna Season Rated as Successful

The 1958 albacore tuna fishing season in waters off the Oregon coast brought over \$2,000,000 income to commercial fishermen, according to the Oregon Fish Commission. Approximately 9½ million pounds of fresh tuna was delivered to buyers at Astoria, Newport and Coos Bay.

The season's success is rated seventh in magnitude since the fishery was discovered by Oregon and California pilchard fishermen in 1936.

Appearance of the tuna schools in Oregon waters this year is credited with providing a timely income for commercial fishermen who were having difficulty in attempts to obtain normal poundage from their salmon fishing activities.

A majority of the deep-water boats stored their salmon trolling gear and switched to tuna fishing as soon as the schools were discovered. Unusual water conditions evidently had altered the normal pattern of commercial salmon trolling and catches had been light. The tuna's arrival put the fleet back to work and added a much needed supplement to financial success of the season.

A cooperative study by Pacific Coast fishery agencies has created a broad program aimed at developing and maintaining the tuna stock.



John R. Ysland, Warrenton, Ore., owns the troller "Ann Marie" which has a 165 hp. General Motors Diesel turning a 32 x 16 Coolidge propeller through Twin Disc reduction gear. Using RPM Delo lubricating oil, Willard batteries, White SurEcho depth sounder, Akervick gurdy and Northill anchor and is finished with Pettit paint.

Otter Trawl Fishermen Form Committee

Otter trawl fishermen in the Astoria-Warrenton, Oregon areas met in Astoria recently to form a committee to work out problems involved in organization of a union for the industry.

Representatives of the Alaska Fishermen's union attended the session to urge the local group to join forces with Seattle fishermen in a union which might later become coastwide in scope.

An AFU spokesman said the union hopes to organize, in addition to the Astoria area, Newport and eventually Eureka, Calif.

Migratory Fish Problems Discussed

Representatives of Oregon, Washington and Idaho game and fish agencies met informally with the Oregon Fish Commission recently for discussion of mutual problems involving migratory fish in the Columbia river.

The session was held in connection with the regular December meeting of the Commission. Reports indicated the game agencies may renew pressure brought last year to have commercial fishing banned in February and allow sportsmen sole right to catch February steelheads.

Attending the meeting were Richard Pressy, Washington fisheries department biologist; John Biggs, Washington game director; L. Pritchard, Vancouver, member of the Washington game advisory committee; James Simpson of the Idaho fish and game department; and Phil Schneider, Oregon game director.

In its regular meeting, the commission postponed until next fall a decision on establishing a winter closed season for shrimp fishing. The Pacific Marine Fisheries commission has recommended a winter closure.

Washington Chum-Salmon Catch Best in Years

Chum-salmon fishing in Puget Sound during 1958 was the best in years and fresh chum-salmon receipts at Seattle from local sources during November totaled over 2,100,000 pounds, three times the November 1957 total.

This amount of fresh chum-salmon brought the season total of these receipts to 3,100,000 pounds, highest yearly total of fresh chum-salmon at Seattle since 1948 when the total reached 3,300,000 pounds.

Total receipts of fresh and frozen fish and shellfish in Seattle during the first 11 months of 1958 were nearly 97,500,000 pounds, compared with 92,400,000 pounds for the corresponding period in 1957.

Receipts of halibut during the 11-month period were 4,600,000 pounds above those for the corresponding period of 1957.

Develops Process to Can Dogfish

The International Research & Development Corp. of Seattle, Wash. has developed a process for canning dogfish. The method results in a highly palatable product which seems to have a crab-like taste and steak-like appearance.

Washington Studying Oyster-Pulp Controversy

A closed meeting of a special board of consultants, named to investigate factors in the state's oyster-pulp industries controversy was held in Olympia on December 18-20.

The board was to study the effects of sulfite waste liquor on fishlife and shellfish and make recommendations on tolerance limits and other matters.

Representatives of the oyster and pulp industries were given opportunities at the meeting to state their respective views.

Board members named were Jack McKee, professor of sanitary engineering at the California Institute of Technology and Gordon Gunter, director of the Gulf Coast Research Laboratory at Ocean Springs, Miss. The two members could either select a third member or call on specialists to aid them.

Seattle Landings Up for December

During December the Seattle, Wash., otter trawl fleet landed 1,288,100 pounds of fish from 45 trips, compared with 830,700 pounds in November and 391,300 pounds in December 1957. Rockfish led with 353,600 pounds, followed by true cod, English sole and ocean perch.

The halibut fleet landed only 13,300 pounds compared with 153,400 pounds in November. A year ago the fleet landed only 1,800 pounds.

Pacific Halibut Catch Nears Record

Good fishing and good prices carried the 1958 halibut catch in the North Pacific above the 14-million-dollar mark, close to an all-time record.

Figures of the International Pacific Halibut Commission in mid-December showed that more than 65,000,000 pounds of halibut were landed during 1958 from the Northern California coast north to the Bering Sea. This is the third biggest catch in modern history.

Three thousand United States and Canadian fishermen manned the regular fleet of 660 boats that brought in this haul. They were aided by more than 600 men in small one and two-man boats.

The value record was established in 1956 when \$14,600,000 was paid for 67,505,000 pounds, and the 1958 catch is expected to run just a little below the 1956 total value.

About 30,500,000 pounds came from between Willapa Bay and Cape Spencer, a little less than 30,000,000 pounds came from between Cape Spencer and the Shumagin Island, and 4,800,000 from west of the Shumagin Islands out along the Aleutian Islands.

Pacific Salmon Commission Meets in Bellingham

The International Pacific Salmon Fisheries Commission held an open meeting on December 16 in Bellingham, Wash.

The commission was to review the 1958 sockeye season, present information on the progress of the pink-salmon and sockeye investigations and discuss regulatory controls for the 1959 season.

Final recommendations for the 1959 regulations were to be discussed with the commission's advisory committee at a meeting this month in Vancouver, B. C.

SOUTH ATLANTIC

Virginia and Maryland Draft New Potomac River Compact

On December 20, negotiators from Maryland and Virginia met at Mount Vernon, General George Washington's home and hammered out a compact aimed at ending the Potomac River oyster wars. It was over different state regulations on the manner of taking oysters that the oyster wars broke out more than a decade ago.

The new compact recently signed by the Joint Potomac River Commission named by the Governors of Virginia and Maryland, calls for creation of a six-man Potomac River Fisheries Commission to establish fishing and oyster regulations. The regulatory body would include three members from the Maryland Tidewater Fisheries Commission, and three members from the Virginia Fisheries Commission.

Under the compact, the legislatures of the two states could jointly enact legislation amending, modifying, or setting aside regulatory orders of the Commission. The Commission would be required to make a survey of the oyster bars in the river to conduct research relative to the conservation and repletion of fisheries resources, and would be empowered to regulate the taking of finfish, crabs, oysters and clams.

It would be empowered to issue licenses to the citizens of each state on the same terms for taking fish and shellfish, and to call upon the agencies of both states to assist it. It could impose a license tax on oysters taken within the limits of the Potomac River not to exceed 25 cents a bushel.

The present laws of Maryland applicable to the Potomac River would remain in force until changed by regulation of the new Commission. No regulation could be adopted by the Commission unless concurred in by at least four of its six members.

Both Carlyle Barton of Baltimore and State Senator Mills E. Godwin, Jr. of Suffolk, who headed the negotiators from the two states expressed satisfaction with the agreement. They indicated their belief that the legislatures of the two states would approve it.

Maryland's legislature meets this month. Virginia's legislature is not scheduled to convene until early in 1960. However, it is possible that the Virginia legislature may hold a special session sometime this year to consider questions dealing with school segregation. If it does, it is likely that it will also consider the Potomac River compact. One spokesman said it might be 18 months before all legal moves have been completed and the compact can be put into effect.

Fisheries Lab Names New Director

The Board of Administration of the Virginia Fisheries Laboratory on December 30 approved the appointment of Dr. William J. Hargis, Jr. as Acting Director to succeed Dr. J. L. McHugh of the Virginia Fisheries Laboratory, whose resignation was to become effective January 19. Dr. Hargis joined the staff of the Laboratory in August 1955 and has been in charge of research on the oyster drill or screwborer.

Dr. McHugh is resigning to accept appointment as chief of the division of biological research for the United States Fish & Wildlife Service's Bureau of Fisheries, in Washington, D. C.

Virginia Commissioner Resigns

Virginia State Fisheries Commissioner Charles M. Lankford, Jr. resigned as of January 1 and Gov. J. Lindsay Almond announced the appointment of Milton T. Hick-



"MISS PLUM", 58' shrimp boat owned and captained by T. B. Smith of Davis, N. C. is powered by a D342 Caterpillar Diesel. Built by Morehead City (N.C.) Shipbuilding Corp., the vessel operates off the coast of Brunswick, Ga.

man, an attorney of Painter, Accomac County, as his successor. Mr. Lankford who has been commissioner since 1942 resigned for personal reasons.

Virginia Leads in Menhaden Production

Virginia menhaden fishermen caught an estimated 300 million pounds of menhaden during 1958. No other state caught as much. More than 2,000 Virginians are employed by the menhaden companies along the Atlantic coast. Last year's catch was above the catch of 1957 by about 50 million pounds, but well below the 1953 state record of more than one billion pounds.

Good Demand for Oysters

For the first ten months of 1958, in the three principal Virginia seafood areas—Hampton Roads, Lower Northern Neck and Eastern Shore—oystermen sold approximately six million dollars worth of oysters according to figures compiled by the Hampton Fishery Market News.

In the Hampton Roads area an average of from 5,000 to 6,000 gallons of oysters were produced during December up to Christmas week when the production went to around 9,000 gallons daily. The production of crabmeat in this area averaged from 1,000 pounds to 1,600 pounds daily. Pound nets, haul seines and gill nets were active catching fluke, striped bass, white perch, carp and catfish. On December 24 these nets landed 5,300 pounds of such fish.

Dealers report that trawl fishing produced an ample supply of good quality fish, with an excellent supply of sea bass and porgy. On December 22, over a 72 hour period, 10 trawlers landed 239,000 pounds of fish in the Hampton Roads area. The trawlers landing this fish were the *Atlantic*, *Bobby and Jack*, *Cavalier*, *Hustler*, *Miss Carrie*, *Lesbie H.*, *Sea Hawk*, *Sea Queen*, *South Sea* and *Voyager*.

Maryland Crab Pot Law Gets Revision

The Board of Natural Resources has approved a change in the conservation regulation on the marking of crab pots. The change permits commercial crabbers to fish up

to 50 pots on a line with only two buoys to mark the whole string. The old rule required that each crab pot have a buoy marker attached.

The change approved was sought by some commercial crabbers from Kent, Cecil and Baltimore Counties. It will go into effect when the new crabbing season opens next April 1.

The crabbers seeking the change said pots attached in a line are less apt to be swept away in strong tides. They also claimed that crab thieves would not be likely to pull up an entire string of pots, and they said less buoys would mean fewer navigation hazards.

Oyster Research Discussed at Conference

The Chesapeake Bay Seafood Survey Committee called a conference to be held at the University of Maryland, College Park on January 7th.

The committee representing the oyster industry of Maryland, tongers, dredgers, packers, brokers and shuckers invited the university's department of zoology and representatives of State and Federal agencies who are responsible for research on or management of oysters in the Chesapeake Bay.

The conference called for discussion on three major areas affecting the state of knowledge concerning the biology of the oyster and how this knowledge might be applied to increasing production. These areas include: Are current management practices taking full advantage of the known biological facts? Is additional research on management required before current biological facts can be exploited? Is additional biological research required for the development of better management practices?

University zoologists invited to participate were Dr. George W. Wharton, professor and head of the department; Richard Highton, a specialist on population genetics; Gordon M. Ramm, a specialist on development and embryology; Henry W. Shoenborn, a specialist on nutritional studies and chemically defined media; and Howard E. Winn, a specialist on the behavior of animals.

Also invited were the following who are responsible for research on or management of oysters in the Chesapeake Bay: Dr. Dayton E. Carritt and Dr. Donald W. Pritchard of the Chesapeake Bay Institute; Dr. I. Eugene Cronin, Director; Elgin A. Dunningham, biologist and G. Francis Beaven, biologist, Chesapeake Biological Laboratory; Dr. Jay D. Andrews and Dexter S. Haven, biologists and Dr. John L. McHugh, director, Virginia Fisheries Laboratory; James B. Engle and John Glude, Fish & Wildlife Service; Dr. Reginald V. Truitt; Dr. Charles E. Renn, John Hopkins University; and David H. Wallace, director, Oyster Institute of North America.

The Chesapeake Seafood Survey Committee under the chairmanship of Ivy Todd includes Glendon Bailey, John T. Handy, Jr., William Woodfield, George Harrison, Loren Sterling, all packers; K. Thomas Everingham, attorney; George Staples, engineer and Jeremiah Valliant, mayor of Salisbury.

Florida Fish Commission Takes Underwater Census

Working with a 1,600 yard seine instead of a notebook, the Florida Game and Fresh Water Fish Commission recently set out to determine the fish population of Lake George.

The report reveals more gizzard shad and less bass and catfish turned up in the seine during the third of five hauls being made by the commission.

The haul was the biggest of three made, with about 15,000 pounds of shad; only 18 bass weighing about 45 pounds; 450 pounds speckled perch; 9 long nose gar; 64 pounds of catfish and a pound of bream.

For the three days, a total of about 27,600 pounds of gizzard shad was taken. The figure apparently bears out the arguments of local commercial fishermen who maintained that the rough fish are crowding out the fish such as bass and catfish.

Advisory Committee Meets in Miami

The National Fishery Advisory Committee held a meeting in Miami, Fla. last month with top officials of the U. S. Bureau of Fisheries to review the research projects in progress financed by Saltonstall-Kennedy funds, and to develop the course of research projects during the coming year. Prominent leaders in the oyster industry who are on the committee and attended the conference are J. Richards Nelson, Connecticut and William P. Ballard of Virginia, both past presidents of Oyster Institute and James McPhillips of Alabama.

The Committee examines the national fishery problems in their broadest sense. Tuna, salmon, shrimp, menhaden, halibut and all the other major fisheries are examined and recommendations made to the Service for their consideration.

North Carolina Menhaden Catches Improve

Menhaden factories in Carteret County were busy early in December as the large menhaden moved closer to the coast. Most of the fish were south of Cape Lookout shoals.

None of the catches up to that time had equalled those of 1956, according to W. H. Potter, manager of Beaufort Fisheries. However, the boats were hoping for good weather and improved catches later on in the month.

South Carolina to Start Crab-Tagging Program

Dr. G. Robert Lunz, director of Bears Bluff Marine Laboratory on Wadmalaw Island recently reported that a crab-tagging program soon will get under way.

The crabs, wearing red tags fastened with stainless steel wire, will be released to determine how far they travel. They will be released in the areas of Wadmalaw Island, McClellanville and Charleston.

Fishermen who catch a tagged crab are asked to mail the tag to the Fish & Wildlife Service at Beaufort, N. C. (not South Carolina). Each tag is worth 25 cents to the sender.

The aim of the program is to determine the migratory pattern of the blue crab. About 2,000 will be tagged for 1959 release. About 1,600 were tagged last year. They were found later as far south as St. George Inlet near Jacksonville.

A major conclusion from the program so far is that the female is the roving member of the crab family. Most males wandered north to Charleston. Lunz says the 1959 program may reveal whether this is a regular pattern.

Georgia Meeting Held to Discuss Crab Trap Law

A public meeting was scheduled for January 8 in Savannah to discuss proposed legislation on the regulation of crab traps in county waters.

The proposed bill requires that: 1. Crab traps will not be placed more than 20 yards from the low water mark in any stream over 300 yards in width; and not over 10 yards from low water mark of any stream of from 100 to 300 yards in width.

2. That no crab traps will be placed in any stream of less than 100 yards in width.

3. That no crab traps will be placed in the designated channel of the Intercoastal Waterway.

4. That each crab trap when placed in any stream shall have attached to its float a red flag of not less than 16 square inches in size, visible for not less than 100 yards in daylight.

5. That each float will bear luminous paint, or other reflective substances visible for not less than 50 yards at night.

6. That each crab trap will bear the name and address of its owner.

7. That any violation of the above restrictions will constitute a misdemeanor punishable by fine or imprisonment, or both.

NORTH ATLANTIC

Massachusetts Towns Begin Shellfish Research Project

Commissioner of Natural Resources Francis W. Sargent reported recently that 17 of the state's 62 coastal cities and towns are participating in a shellfish research project by the Marine Fisheries Division, which will ultimately prove of economic benefit to them.

The project, supervised by Marine Fisheries Director Fred C. Wilbour, is designed to collect basic information on the habits of shellfish, which will be correlated over a period of time. Later, the shellfish officers of the participating towns will be given the scientific data, which will enable shellfish operators in those towns to increase production and sales.

A Russell Ceurvels and Richard H. Loring, marine biologists are conducting the project. Each week, the local shellfish officers take the temperature and salinity of the water, and study the monthly growth rate of the shellfish.

Sargent said that these studies will ultimately determine the best type of seed shellfish to liberate in the coastal waters of each town. The study will show how to produce better quahogs at Provincetown, soft shell clams in other places, and oysters in still other places. This information, which has never been gathered before in a general study, will do much to improve Massachusetts' shellfishing industry.

Gloucester Groundfish Industry Shows Considerable Improvement

New England fishermen caught 5 per cent more groundfish during 1958 than in 1957, and the dollar value of their catch rose 24 per cent.

An increase of 12.7 million pounds of fish and 3.9 million dollars was the strongest note of encouragement that has been heard by New England's oldest industry for a long time.

And Gloucester's groundfish industry did even better. Production was up 14.5 per cent or almost three times the gain in the three-port total. And the dollar value of groundfish landed in Gloucester was 27 per cent more than in 1957.

Capt. John S. Carrancho

Capt. John Santos Carrancho, 78, one of Gloucester's leading master mariners for years, died early last month at the Deaconess Hospital in Boston, Mass.

Capt. Carrancho came to Gloucester as a young man and fished out of this port for over 50 years.

His first command was the schooner *Henry L. Marshall*, then the schooner *Louise B. Marshall* and the schooner *Herbert Parker*, all dory haddockers. His final command was his own dragger the *Leonard C.*

Batchelder Joins Allied Diesel

H. E. Batchelder has become associated with Allied Diesel Sales & Service Inc., Boston, as sales representative covering Southern Massachusetts, Cape Cod and Rhode Island. John Young continues to cover northern Massachusetts and New Hampshire for the firm, which is dealer for Allis-Chalmers Diesels, B & W Lathrop engines and Lister Diesels.

East Coast Equipment Handling Petter

East Coast Equipment Corp., 205 Rosemary St., Needham Heights 94, Mass. has been appointed New England dealer for Orenda Industrial, Inc., whose line includes Petter, Armstrong Siddley and Mirrlees Diesels. The engines are made in air and water cooled models, rang-



Chief engineer Hans Jacobsen, left, and shore engineer Woodrow Wilson beside new 32 hp. Petter air cooled auxiliary Diesel on trawler "Bonnie", operated by Boston Bonnie Fisheries.

ing from 3½ to 864 hp.

A recent installation by East Coast was a Model PD4 Petter air cooled Diesel in the steel trawler *Bonnie* operated by Boston Bonnie Fisheries. A 1200 rpm., 32 hp. unit with hydraulic starting, the engine operates the vessel's 25 kw. generator, and is completely independent of other equipment aboard the vessel.

East Coast Equipment was organized last year, and is headed by John Forrest, president, who was formerly with Atlantic Equipment Co. Marshall M. Dawes, previously New England service representative for White Diesel, is vice president and general manager. Harold Bornstein is treasurer; Charles Pearson, office manager; and Mitchell Gadless, shop foreman.

The firm operates a complete Diesel rebuilding shop, and specializes in assembling custom-built generator sets and pumping units for marine and industrial applications. Rebuilt General Motors 6-71 series engines are offered, as well as parts and service for 6-71 and 6-110 GM and Petter Diesels. Exchange service is available for heads, blowers, injectors, pumps and gear boxes, and repair service is handled for the New England branch of White Diesel. A matched pair of custom rebuilt 6-71 GM engines was recently furnished to the Maine Dept. of Sea & Shore Fisheries, Boothbay Harbor, Me. for one of its patrol boats.

Join New Bedford Fleet

The former Gloucester dragger *Frankie and Jeanne* has been purchased by New Bedford, Mass. interests and is fishing out of New Bedford. The *Libby*, formerly of Plymouth, has joined the New Bedford scallop fleet.

Named President Seafood Producers

Leif Mikalson has been named president of the New Bedford Seafood Producers Assoc. to succeed Mathias Bendiksen. John J. Gobell was elected vice-president and John A. Murley, secretary and treasurer. John F. Linehan is general manager of the association.

Named as directors of scallopers were Peder Eiesland, Napoleon Holmes, Morris Rosenberg, Olaf Enoksen, Shirley Mitchell, John G. Murley, Alexander Smith and Michael Smith. Large dragger directors are Mr. Gobell, Jacob Jacobsen, Leif Jacobsen and Sofus Mortensen. Small dragger directors are Mr. Bendiksen, Paul Mathison, Rudolph Matland, Ernest Murley, Harold Nickerson and John A. Sylvia.

New Bedford Studying Vocational Education

Vocational education for New Bedford, Mass. fishermen under the Federal Fisheries Education Bill is being studied by a group from New Bedford. The courses would include net mending, splicing and other fundamental work, gradually expanding to include classes in electronics equipment, piloting and navigation.

Maine Lobstermen Would Ban Lobster Dragging

Last month, it was announced the Maine Lobstermen's Assoc. would sponsor a bill prohibiting dragging for lobsters along the Maine coast. Shortly after the announcement was made about 20 lobstermen met in Tennant's Harbor to discuss the problem.

The fishermen contend that the other trawlermen on small draggers, fishing for cod or "trash" fish are bringing in many lobsters dragged up from the bottom.

The lobstermen would have the shellfish taken only by conventional trap, claiming death and maiming of the lobsters by the dragging gear is going to create a conservation problem.

The State of Massachusetts has a law prohibiting dragging of lobsters within a three mile limit which may be a pattern for a similar Maine law.

Forrest Davis of Port Clyde and his son Chester both fishing dragger operators, do not see the dragger vs. lobsterman situation as some do.

They report that charges that draggers working the bay channels are dragging up and destroying traps and gear of lobstermen are unfounded. Instead, according to them, they make an effort to avoid lobster fishing areas and leave the channels when the lobstermen move offshore.

Want Sardines on Military Menu

The Maine Sardine Council has initiated a formal request to the U. S. Quartermaster General that sardines be included as a regular procurement item for the overall military master menu.

Maine sardines have been included on the European Theatre master menu for several years and have enjoyed good acceptance.

The industry has developed a 12-ounce institutional size can of oil sardines which is ideal for mass feeding and volume production facilities are available if a market for this item can be established.

Executive Secretary Richard E. Reed was to visit the National Food Brokers Convention in Chicago last month and then proceed to Washington, D. C. to attend a meeting of the national Fish & Wildlife Service Advisory Committee of which he is a member. While in Chicago he was to confer with top officials at the Quartermaster Market Center headquarters regarding the proposal.

Brown Retires from Sargent-Lord

Wilbert Brown retired December 31 at the age of 78 after being identified with the marine supply business on the Portland, Me. waterfront for 55 years. For 21 years he was with Sargent, Lord & Co., where he had charge of retail sales of hardware and fishing supplies. Prior to this, he was with Charles F. Guptill Co. for 34 years. Clifton Stack has taken Brown's place at Sargent-Lord.

"Kyack" Equipped with Lodar

An Elac Lodar (RCA Echograph) has been installed by The Harris Co. on the *Kyack*, owned by Maine Marine Products, Inc., Portland, Me. Used as an underwater fish finding instrument, the training range of hoist/sweep gear on the new equipment covers an area from 130 degrees port to 130 degrees starboard, and a tilting range of from 0 degrees (horizontal sounding) to 90 degrees (vertical sounding). It is designed to locate fish over a wide area, with a sweep up and down and to both sides.

Capt. Louis Thompson's dragger *Elinor* & *Jean* of Portland, Me. is getting a new Hathaway winch, sold by The Harris Co.

New Ruling on Licensed Officers

The Coast Guard has notified 40 Fathom Trawlers that in the future its draggers must have four licensed officers aboard before sailing. The practice has been to sail with a licensed master and chief engineer and to use licensed assistants and mates whenever possible to get them. However, in the absence of licensed officers, experienced crewmen have sailed as mates and first engineers.

To Demonstrate Fish Net Machine

The new Amita patented automatic power net machine, made by Amita Fishing Net Mfg. Co., G. K., Toyohashi, Japan, will be demonstrated at The Harris Co., Portland, Me. during the last week of January and the first week of February.

The Model DKA machine is designed to make double knot as well as single knot fish netting with both synthetic and natural fibers. It features compact style and sturdy construction, with basic parts covered by detachable metal. One operator can run 2 to 4 machines simultaneously with the aid of automatic stop motion apparatus. Automatic self-adjusting apparatus for warp, and a scale adjusting system are provided. Through the use of a channel wheel instead of gear system, any minute adjustment can be made simply by turning one knob.

Cape to Try Oyster Growing

An attempt will be made to obtain oyster set for Provincetown Harbor, according to a letter from Frederick C. Wilbour, Jr., director, Division of Mass. Marine Fisheries.

Mr. Wilbour suggested that if the shellfish officer would prepare chicken wire bags of shells to be used to catch oyster set they would be picked up and transported to the Vineyard where they will be placed in a State controlled pond in an effort to catch a set of oysters.

The bags containing the oyster set will be returned to the shellfish officer in the Fall and with the assistance of a biologist will be placed in the best possible location to survive.

Nantucket Fishermen's Elections

Philip Grant, a co-owner of Nantucket Sea Foods Co. has been elected president of the Nantucket Fishermen's Assoc., succeeding Nestor Richard who retires after serving two years in the position.

James Worth was elected vice-president and Ellison Pease was re-elected to the joint position of secretary-treasurer.

Members also elected an advisory board, consisting of Shellfish Warden William Winslow, W. Byron Snow, Henry Huyser and Clinton Andrews.

Members discussed articles to be placed in the annual town warrant, including a request for funds for propagation work with shellfish; for setting out marking buoys in and around Madaket Harbor and Tuckernuck Island, and for building a landing ramp for small boats at Commercial Wharf.

New Jersey Clammers To Discuss Clam Line

A public hearing on the controversial clam line in Delaware Bay was scheduled for January 7 in Cape May Court House. The meeting was to be directed by Commissioner Salvatore Bontempo of the Department of Conservation and Economic Development. It was called by State Sen. Charles W. Sandman who has blocked legislation to allow heavy dredging of clams and oysters south of the line.

Rumors that the clam line was to be changed were refuted by Sandman who told the bay men his actions on clam line legislation would be governed by the sentiment of the people of Cape May County. Hand tongs

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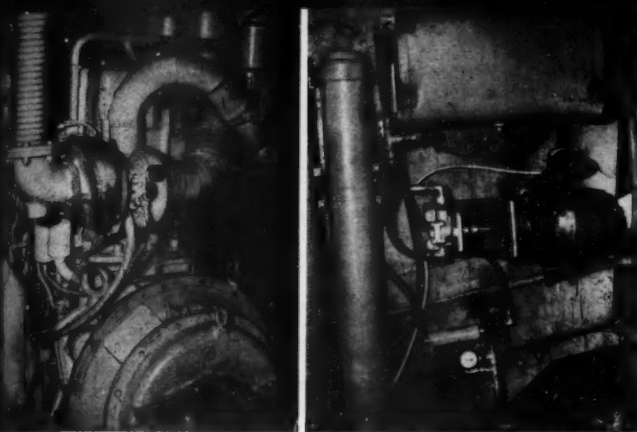
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Portland, Me. trawler "Gulf Stream", her new 555 hp. Waukesha-Diesel (left), American Bosch Hydrotor starting system (center).



Portland Steel Trawler "Gulf Stream" Gets New Power Plant

Installation of a new Waukesha Diesel, sold by Hathaway Machinery Co., Inc., Fairhaven, Mass. has been completed in the 110' steel trawler *Gulf Stream* of Portland, Me. Owned by Willard-Daggett, Inc. of which Capt. Harold Paulson is president, and John E. Willard, treasurer, the vessel is skippered by Capt. Richard Paulson, with Vernon Mansfield as engineer.

The new engine is a Model LRDBCSM, turbo-charged Waukesha, rated 555 hp. continuous at 1200 rpm., with #3971 Snow-Nabstedt 3.5:1 hydraulic reverse-reduction gear and Snow-Nabstedt 3:1 front power take-off.

The engine is equipped with an American Bosch Hydrotor starting system. Utilizing a self-contained hydraulic cranking method, independent of external energy sources, the unit turns over the engine at high speed. The system on the *Gulf Stream* comprises an electric motor pump, oil reservoir, high pressure filter and unloading valve, and four high pressure accumulators which store hydraulic fluid for operating the cranking motor. Valving is

arranged to provide positive meshing of pinion and ring gears before full torque is applied for cranking.

The engine is fitted with Kewanee-Ross heat exchanger and Columbian dual Rodmatic throttle control, and swings a 70 x 48 four-blade propeller. A 7½ kw. generator is driven off the tail shaft, a Model R130 Marine Products pump is driven from the power take-off, and the forward shaft drives the trawl winch from a Falk Model 14FS springpack, flexible coupling through a right angle gear box. Socony-Mobil Delvac S230 lube oil is used.

Aeroquip flexible hose lines are used for piping the engine, and include 3" line for fresh water, 2½" suction line to Marine Products Model R15200B raw water pump, 2" discharge line for raw water; and ¾" lines for oil cooler on clutch, fuel oil supply to Bosch pump and high pressure for the Hydrotor system.

The *Gulf Stream*, which was originally the Boston trawler *Lynn*, fishes for redfish in the Gulf of Maine during the winter and in the Gulf of St. Lawrence and Grand Banks in summer. Her crew totals seven, and her capacity is 200,000 lbs. She is the first vessel in the Portland fleet to have television.

have indicated that they believe that proper utilization of the natural shellfish supply in the bay can provide an economic uplift to the economy of the county.

Long Island Oystermen May Reintroduce Starfish Control Legislation

The last Congress failed to enact legislation to facilitate starfish control in Long Island. This failure to act has hindered greatly the oyster industry in that area. Many growers have been unable to prevent failure of the fine oyster set which took place in the summer of 1958.

It is thought that the opposition of the U. S. Budget Bureau to starfish control was a most important factor in the legislation not being acted upon. It now appears that before any Federal assistance will be forthcoming, the states directly affected must be able to demonstrate they are attempting to handle the situation, but it is too extensive for them to cope with.

It has been suggested that the industry members in New York and Connecticut discuss the matter with their state agencies. If it can be demonstrated that the states and industry are working and cannot handle the problem alone, the oystermen may have a chance in the forthcoming Congress.

Connecticut Man Reports on Oyster Culture in Europe

Dr. Victor Loosanoff, Director, U. S. Fisheries Laboratory, Milford, Conn., has recently returned from an extensive trip to Europe in which he travelled in most of the shellfish countries, met with their shellfish scientists to exchange information and ideas, and saw the actual commercial operations first hand. His travels included oyster areas of England, Holland, France and Italy. In a general statement about his stay in France, Dr. Loosanoff wrote: "The oyster industries of France although quite different from ours, are healthy, active and prosperous, supplying the French people with excellent products and giving employment to thousands of men and women."

He found also that oyster farming in parts of northern Brittany had only been undertaken recently. This expansion was suggested by a French shellfisheries expert, Dr. Lambert, in their Bureau of Fisheries. The new industry is now well established. Dr. Loosanoff felt that they were in many respects similar to the inshore areas of the state of Maine. Early transplants of the European oysters from his laboratory have already established themselves in certain Maine waters and are reproducing there.

GULF OF MEXICO

Mississippi Research Vessels Catching Snappers in Trawl

The possibility of commercial fishermen using trawling nets in catching red snappers has been brought closer to reality by experiments being conducted by the Fish & Wildlife Service at Pascagoula.

The Service's vessel *Silver Bay* has been averaging about 2000 pounds of the fish a day in trawling experiments in the vicinity of Arcas Cays off the Yucatan coast of Mexico.

Snappers are usually caught with handlines due to the rough nature of the bottoms they frequent. Ordinary trawling nets would be destroyed on these bottoms.

The *Silver Bay* has been using a heavier modification of the New England trawl. It is made of braided nylon. This type net can drag rough bottoms with less likelihood of ripping.

The other research vessel operating out of Pascagoula—the *Oregon*—has been working in the same locality and has been conducting underwater television experiments.

Dredging Reefs to Stay Closed

Oyster reefs in Mississippi waters used for dredging were not opened for a late season this year. The Mississippi Sea Food Commission decided to keep the reefs closed after an inspection early in December showed few improvements and possibly fewer oysters on the reefs than when they were inspected September 25.

A long range rehabilitation program has been suggested by commission biologist Bruce Strawbridge as the most probable hope for the reefs. He added that possibly raking over the reefs and planting shells before spawning might help the reefs.

To Grow Oysters in Leased Waters

Owners of a Gulfport, Miss. seafood concern, William and James Simpson's Canning Co. recently requested information at the monthly meeting of the Mississippi Seafood Commission pertaining to the laws on leasing water bottoms to plant oysters.

They are planning to apply for a lease to secure water bottoms in the north section of Bay St. Louis. The Simpsons and a brother-in-law will each lease about 100 acres. Under the law allowing leasing, no one can lease more than 100 acres. The water bottoms probably will be leased at \$1 per acre plus the expense of having the area surveyed.

Mississippi November Landings

Landings of shrimp at Mississippi ports during November were unsteady due to bad weather. White shrimp accounted for nearly all of the production. Catches were made in inside water areas and also from outside shrimping grounds. Most landings were reported from areas around the Eastern Mississippi River passes. During the middle of the month excellent catches were made off Pass a Loutre when the weather permitted and bottom clear of sea grass could be found.

Crab landings increased over the previous month as all crab processors were working again. A new crab processing plant began operating in Pascagoula during the month and helped the total production to increase.

Oyster landings were steadily increasing as cold weather helped the raw stock oyster trade build up. Landings were from local beds by tongers and from Louisiana waters by the dredge boats. Quality of oysters

landed from all areas was very good compared to the lack of high quality oysters caught last fall.

Mullet landings were down 20 percent while speckled trout were up over 100 per cent. Red snapper landings were 25 per cent greater and sheepshead and drum were up nearly double the month of October. Tuna landings were up again as both vessels were producing. Industrial fish landings were high with only a few days of unsteady production due to bad weather.

Alabama to Improve Channel on Bon Secour River

The Baldwin County Commission has announced it will spend up to \$5,000 on a dredging project to deepen a pass at the mouth of Bon Secour River.

At the present time, fish and shrimp boats cannot move in and out of the river except at high tide. South Baldwin Chamber of Commerce and Bon Secour seafood industries have been pushing the project to open the river mouth.

The work done will be temporary but it is hoped that in the summer a more permanent pass and a channel farther up the river can be made.

Alabama November Landings Increase

Landings of shrimp at Alabama ports during November were approximately 286,500 pounds, headsoff, and were 45 per cent above the landings for November 1957. This increase is attributed to the good catches made in waters around the Mississippi River Delta. Outside trawlers fished on both sides of the river and landed both brown and white shrimp with the latter predominating.

There was a seasonal increase in oyster production. The yield of oysters increased to an average of two gallons per barrel. The market was good and prices remained steady.

Mullet landings increased slightly with a large portion of the catches containing roe. Demand for large mullet was fair, but poor for small.

Crab landings declined due to the cold weather and the conversion of crabbers to oyster-tonging operations. The crab meat market, however, was reported good.

Louisiana Inside Waters Closed Until Spring

Louisiana's "inside waters" were closed to shrimping beginning December 21 until April 30, according to an announcement made by James N. McConnell, chief of the Oyster and Water Bottoms of the Louisiana Wildlife and Fisheries Commission. Shrimping is also illegal between July 1 and the third Monday in August of any year.

Louisiana Fisheries Education Courses

The fishery education courses which the state of Louisiana has been conducting for nearly a year are proving very successful. A full-time person has been employed to direct the program and advisory committee consisting of members of the Louisiana Wildlife and Fisheries Commission, the Gulf States Marine Fisheries Commission, representatives from the menhaden, shrimp and oyster industries, boat owners, captains and fishermen.

Several hundred captains are now taking courses in navigation. Several classes in radio operation have completed courses and have secured licenses. There are expected to be 15 courses on marine engines in operation this month and next.

During the next session of the Louisiana Legislature, a request will be made for funds to build a technical institute for commercial fishing in the center of the fishing area of the state.

Louisiana Conservation Program Paying Off

Alarmed by the decline of shrimp production, the entire Louisiana shrimp industry united in efforts last year to bring about a sound conservation program for shrimp. The results were fruitful. The program resulted in an amazing come-back of the shrimp industry during the latter months of 1958. The immediate results have been made more conspicuous by the fact that Alabama, Mississippi and Texas are showing a decline of shrimp production during 1958. Louisiana and Florida, which also has a good conservation program working, are showing shrimp production increases.

Louisiana's canned shrimp pack for 1958 was expected to reach about 765,000 cases. This compares favorably with the estimate of 754,000 cases made in July.

There is a continued growth of and demand for deveined shrimp—even to the extent that during 1958 the Armed Forces requisitions came through for deveined shrimp despite the fact that it is higher priced.

In 1958 a larger share of the canned shrimp pack went into the 4½-oz cans than ever before. The growing popularity of this can size is attributed to growing consumer acceptance.

According to Ray Robinson, president of the Louisiana Shrimp Cannery Assoc., Louisiana shrimp has shown a 25 per cent gain over 1957.

E. R. McDonald of Newellton, commission chairman, said that heads-off shrimp production from January to November of 1958 was 17,406,000 pounds. In 1957, for the same period, production was 13,080,000 pounds.

At a recent meeting of the wildlife and fisheries committee, a request was made by the Louisiana Oyster Dealers & Growers Assoc., for the commission to enter into an agreement with the Mississippi cannery on a two-month closing of Lake Borgne. This closing will not affect sack oyster fishermen who look only for select oysters.

It is believed the delay of the open season from January 1 to March 1 will enable the oysters to grow to the legal three-inch size for steamer fishermen.

Bertoul P. Cheramie

Bertoul P. Cheramie, 63 of Houma, was killed in automobile accident last month at Franklin. He was engaged in the seafood processing business for 40 years and owned a fleet of fishing boats, several processing plants and a fleet of refrigerator trucks. Mr. Cheramie was a member of the National Fisheries Institute and the American Oyster Growers Association.

Texas Shrimp Association Meets

The ninth annual meeting of the Texas Shrimp Association was scheduled to be held at the Jack Tar Hotel in Galveston on January 9 and 10. The meeting was to open with a general session at 2:00 p.m. on the 9th. Business sessions were to continue through the following day with the annual meeting closing with a cocktail-buffet-dance on the 10th at 8:00 p.m.

Texas Fish Production Figures

Landings of seafoods at principal ports in the five Gulf states the first eleven months of 1958 showed an increase in fish and crab production and a decrease in shrimp and oysters as compared with the same period in 1957.

Edible finfish increased to 7.63 million pounds in 1958 from 7.1 million pounds the previous year. Blue crab landings for the period was 9.1 million pounds, a sizable increase over the 8.3 million pounds during the same period in 1957.

Shrimp production for the period was 84.9 million pounds and the same period in 1957 it was 86.8 million



THE "MIRACLE" built by Morehead City (N.C.) Shipbuilding Corp., has the new type double rig developed by that company. She is owned by Edward J. Mulloy, Aransas Pass, Tex., and is powered with a 210 hp. 6-110 General Motors Diesel.

pounds. Oyster production continued to drop from 515,600 barrels during the first eleven months in 1957 to 369,000 barrels the first eleven months of 1958.

Holiday demands for fish were light. Edible finfish production was seasonal with a good supply of bay species, sheepshead, speckled sea trout, red and black drum. Rough seas curtailed deep-sea production of redsnappers, grouper and jewfish, but the supply was adequate for demands.

Winds Keep Texas Trawlers in Port

During the first two weeks in December high winds and unusually rough seas kept many trawlers tied up at the docks. A few others, venturing a trial in the Gulf, brought on a rash of calls to the Coast Guard for assistance from disabled and sinking boats.

Despite these unfavorable conditions, however, landings at principal Gulf ports reached 3.4 million pounds of headoff shrimp during the 30-day period ending December 15, as compared with 4.3 million pounds during the previous month and 3.4 million pounds in the corresponding period in 1957.

This brought the total landings of shrimp at principal Texas Gulf ports to 43 million pounds for the first eleven and one-half months of 1958.

To Construct New Pass at Cedar Bayou

Dr. J. E. Bauer, spokesman for Texas commercial and sports fishermen interested in the opening of a fish pass across the barren reefs to join inland salt water with the Gulf of Mexico at Cedar Bayou, reports that all engineering work on the project is complete and bids can be taken for construction of the project as soon as right-of-way acquisition can be completed.

The Texas Game and Fish Commission has agreed to underwrite the cost of construction of the pass, which has been estimated at between \$150,000 and \$250,000.

One-Day Training Course

The Texas Shrimp Association last month sponsored a one-day vocational training course for trawler captains and crew members at various points on the Texas coast. The course covered the operation, preventative maintenance and minor repairs of depth recorders and marine radios. The course was free and trawler captains and crews were urged to take advantage of the offer. The training was given during the Christmas holidays at Galveston, Freeport, Aransas Pass and Brownsville.

EQUIPMENT and SUPPLY NEWS

Apelco Line Has New Depth Sounder

Applied Electronics Company, Inc., South San Francisco, manufacturer of Apelco marine equipment has announced a depth sounder, automatic pilot, and a redesigned line of marine radio telephones for 1959. The MS-11 marks Apelco's entry into the depth sounder field. Featuring readability to one foot, the manufacturer claims an unusual arrangement for insuring contact reliability. The MS-11 is a 100' sounder. Other units are planned to cover depths up to 100 fathoms.

The AP-12 automatic pilot, designed for both hunting and non-hunting operation, includes a transistorized power unit, hermetically sealed relays, remote control course changer. Ease of installation is claimed for the vertical mounting mechanical drive unit.

In addition, Apelco has offered two entirely new transistorized radio telephones to the outboard and small boat market. Model AE-17M is a 3-channel, 20-watt, two-way radio and the AE-25M is a 5 channel, 30-watt outfit. Both are supplied with Flexi-dyne whip antenna, antenna mount, and crystals. Clamp mounting allows equipment to be removed for shore storage.

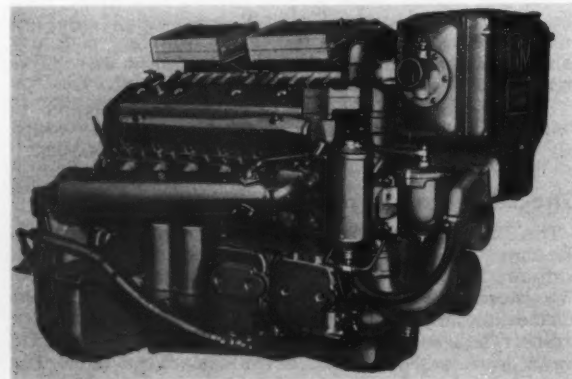
Four other new radio telephones cover the field. They are the AE-32AM 6 and 12-volt, 42 watt power packages; AE-56AM 65-watt, 6-channel unit; AE-101AM 100-watt, 6-channel telephone; and Apelco's AE-176N 150-watt model. Also available is the AE-190CM, a 10 channel, 240-watt set.

Detroit Diesel Adds Eight New Models

Detroit Diesel Engine Division of General Motors, Detroit, Mich. has announced eight new basic "V" and "in-line" engines to complete their All Purpose Power Line. With the addition of the new models to existing Series 71 and 110 engines, the General Motors power line now ranges from 20 to 1650 hp.

For small work boats a new group of engines known as the series 53 has been introduced. Although the units bear a resemblance to the 71 series, they are smaller and lighter and have a displacement of only 53 cubic inches, and a bore and stroke of 3 1/8 inches x 4 1/2 inches. This compares with 71 cubic inches and 4 1/2 inches x 5 inches in series 71. The new series is made up of 2, 3, and 4-cylinder in-line engines and a 6-cylinder "V" unit. The engines range from 20 to 195 hp. and 740 to 1340 pounds in basic weights.

New engines added to the 71 line widen the power range of that series. With eight basic engines available in the series boat owners have a selection of single engines for



The 12-cylinder, 504 hp. Detroit Diesel of the 71 V-engine series.

Apelco AE-25M Radio Telephone.



propulsion, auxiliary power, and deck equipment with ratings from 33 to a maximum of 675 hp. When turbo-charged or assembled as multiple units the maximum power available is boosted to 1650 hp. Added to the line have been "V" engines of 6, 8, 12, and 16-cylinders. Their configuration permits the installation of engines of higher horse power in the same space occupied by engines of less horsepower.

RCA Transistorized Direction Finder

A new transistorized radio direction finder and a semi-portable ultrasonic fish finder were shown by the Radio Corporation of America for the first time at the New York boat show. The new fish finder, of the recorder type, measures 10 x 8 x 7 inches and weighs 22 pounds. It can be installed on boats with a 6, 2, or 32-volt dc power supply. The recorder rests on a sloping base for greater visibility and the ceramic type transducer may be attached to the side of the boat or be hull mounted.

The Portaguide direction finder is an eleven pound, 3-band unit, which operates from self-contained batteries good for more than 400 hours service. The super-heterodyne receiver contains eight transistors and has a built-in loudspeaker, phone jack for headphones, and provision for connecting an external antenna.

The Portaguide also features a compact shielded ferrite rod antenna mounted on top of the case and extending two inches. As a radio direction finder it operates on the low frequency band of 200 to 415 kc. It also operates on the standard broadcast band and the medium frequency radio telephone band of 1700 to 3400 kc.

New Type Linen Thread Net Preservative

Linen Thread Co., Inc., 418 Grand St., Patterson, N. J. has developed an inexpensive net preservative considered superior to coal tar. Four different special-purpose chemical formulations for treating cotton and synthetic netting are now being made by Linen Thread under the Netset name and designations of No. 1, No. 2, No. 3, and No. 4.

The numbers 1, 2 and 4 Netset formulations provide for most commercial needs. The number 3 Netset is at present being used by the company for the factory treatment of synthetic nets in meeting the requirements of Maine sardine fishermen and others. No. 1 is used for cotton netting to make it tougher and more abrasion resistant, and seal the threads against decay. Reports say that the treatment remains effective longer than their previous treatments.

Number 2 Netset was developed for treating nylon and other rot-resistant synthetic netting. Number 4 resulted from requests of Great Lakes trap fishermen for a highly flexible product.

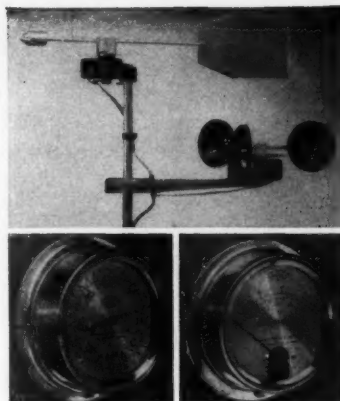
White Offers Windmaster Indicator

The newest item from Wilfred O. White & Sons, Inc., 178 Atlantic Ave., Boston, Mass. is the White Windmaster which provides wind-speed and wind-direction information. Twin indicators are finished in polished laquered brass or chrome. Each dial is 4 inches in diameter for easy legibility. The mounting diameter of each indicator is 5½ inches.

The masthead unit for the wind-speed section consists of three spinning cups which revolve in the wind to generate and transmit electricity to the indicator. Accuracy in measuring windspeed, claimed to be within 2 percent, is accomplished by the use of a meter and two scales; 0-50 and 0-120 mph. No external current is involved. A shield is used to keep the area of bearings free from rain and snow.

"Split-vane" construction and balanced assembly are designed for closer following of wind changes. Transmitted electrically to the indicator, the directional information is registered by a needle centered on the compass card dial. A pivot mounted in synthetic sapphire bearings is used for more sensitive following of the pointer. The wind direction indicator is built to run from either 100-volt ac or 6-volt dc.

White Windmaster Indicator showing the mast-head unit, and speed and direction indicators.



Surrette Increases Battery Capacity

A marine battery for engine starting, lights, power, and radio, the Model X-H by Surrette Storage Battery Co., Inc., 25 Jefferson Ave., Salem, Mass., has had an increase in power and capacity up to 10 percent, made possible by enlarging the plates from 5¼ to 5½ inches high. It is available in 6 volt—120 to 460 ampere hours and 12 volt—100 to 230 ampere hours sizes.

The new H-H-G type marine battery for large craft has also had its plates increased in size to 5½ inches. The battery features Rezistox plates, rubber separators with glass separators and increased battery capacity. Voltage and capacity sizes are 6 volts—230 ampere hours, 12 volts—230 ampere hours, 32 and 110 volts each unit cap. 147 to 315 ampere hours. Four units are required for 32 volts and 14 units are required for 110 volts.

New sizes are available in the GTNS and GTEH large craft series. The GTNS is of the same construction as before but is now 17½ inches high, and has 32 and 110 volt capacity—360 to 600 ampere hours. GTEH is 22½ inches high and available in 32 and 110 volt capacity—625 to 900 ampere hours. Both models feature Rezistox plates, triple insulation and plate edges sealed with polyethylene.

J. Genn Satterthwaite, 305 Sterling Place, Portsmouth, Va., has been appointed a direct factory representative for Surrette batteries, covering Virginia, North and South Carolina, Georgia and part of Florida.

International Paint Expands Line

International Paint Co., New York, is making available again their wear-tested transom varnishes and bottom paints, representing 13 different types. New non-reflective, pastel shade cabin paints, designed to reduce glare have been introduced. International also continues its "two resin", fiberglass covering process.

Two booklets are available—one detailing the Interlux Fiberglass System, covering each step on the fiberglass lamination operation, and the other a 40 page book titled "Boat Painting Helps." The latter covers boat painting from preparing the bilges to receive paint, to the latest techniques in applying hull and deck preservatives.

International Paint Co. also has a line of non-skid compounds, finely granulated rock chips which added to any deck paint provides a sure-footed, sandpaper type finish.

Ni-Bral Propellers From Michigan Wheel

New Ni-Bral outboard propellers are featured by Michigan Wheel Company, Grand Rapids, Michigan, in their 1959 announcement. It is pointed out that the super-strong

alloy is available for outboard motors of 35 hp. and larger in a limited range of 2, 3, and 4 blade sizes and commands a premium approximating the cost of a propeller repair job. The alloy has proven extremely strong in the past on inboard propellers and in the outboard Ni-Bral line the company is guaranteeing the blades against breaking for five years.

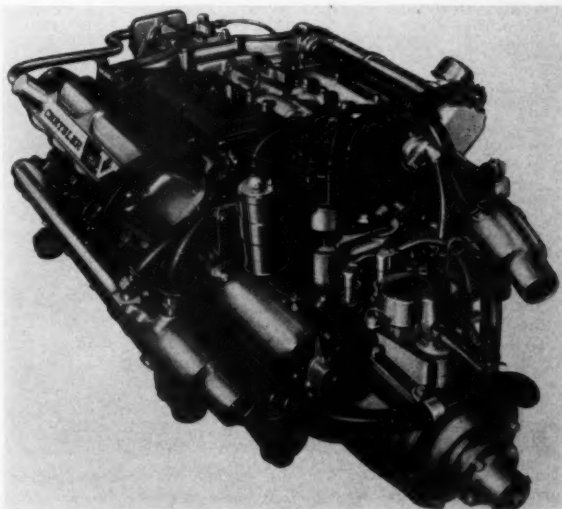
Michigan Wheel also has the cupped Dyna-Jet and Star inboard propeller lines, plus newly developed variable-pitch propellers for the two largest motors in the Mercury line, the Mark 58 and Mark 78.

"Sea-V" New Chrysler V-8 Marine Engine

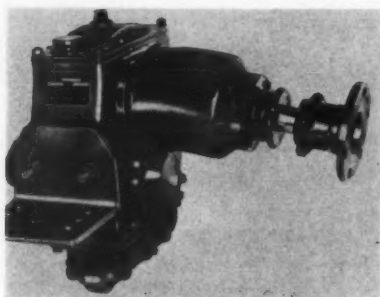
A new Chrysler V-8 marine engine, designed to meet the power requirements of 80 percent of inboard boats has been unveiled by Chrysler Corporation, Chrysler Marine and Industrial Engine Division, Detroit, Mich. The "Sea-V" which develops 177 hp. at 3600 rpm., offers a low silhouette and features "quiet power".

The new engine has a bore of 3.91 inches, stroke of 3.31 inches and a displacement of 318 cubic inches. It has an 8.2:1 compression ratio. Height of the engine above the propeller shaft is 15 inches.

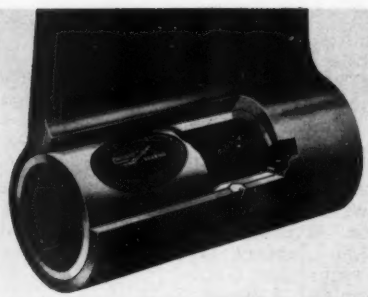
Like all Chrysler marine V-8 engines the "Sea-V" features: oversquare, short stroke design; splash-proofed ignition system; spark plugs protected against moisture; sealed generator; and water shedding protection for the distributor. Readily accessible mechanical valve tappets; water heated intake manifold; water-jacketed exhaust manifolds, and dual pocket water pump to assure equal water supply to each bank of cylinders are also featured.



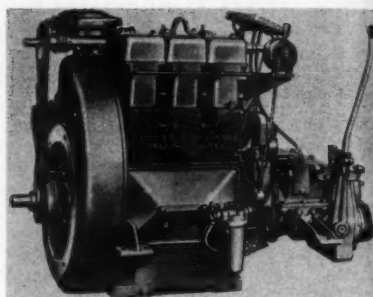
The 177 hp. Chrysler Sea-V.



Walter Down Angle Reduction Gear.



Goodrich Cutless rubber bearing in strut.



Lister HA3MGR, 3-cylinder 30 bhp. Diesel.

Walter Features Down Angle Gear

The Down Angle Reduction Gear, manufactured by Walter Machine Co., Inc., 84-98 Cambridge Ave., Jersey City, N. J. is a heavy duty gear unit which allows the engine to be set in a level position rather than having the engine inclined upward in line with the propeller shaft. The 10 degree down angle reduces the over-all height of the engine, resulting in a lower center of gravity.

The front section of the unit contains a built-in double universal joint which is flexibly enclosed by spring-loaded oil seals that retain the lubricant and allow for angular and axial misalignment. The Down Angle Reduction Gear is manufactured in 2 sizes and is suitable for engines up to 200 hp. The drive can be supplied in several standard reduction ratios. Special and step-up ratios are also available.

Lister Introduces Latest in Series

Lister-Blackstone, Inc., 42-32 21st St., Long Island City, N. Y., has announced the latest series of air cooled marine propulsion engines. Featured are the HA3MGR developing 30 bhp at 1800 rpm and a 2-cylinder unit, HA2MGR developing 20 bhp at 1800 rpm. An intermediate model SL3MGR has also been introduced with a rating of 12½ bhp at 1800 rpm.

The engines are air-cooled, 4-stroke, Diesels compact of design and lightweight. Cooling is effected by an impeller integral with the flywheel, with a fan shroud and ducting arrangement to circulate the cooling air through deep fins on each cylinder barrel. Such an arrangement is designed to permit the engine to operate in ambient temperatures up to 130 degrees F. without loss of power.

Hand starting can be effected from the flywheel end and one of the main features is the simplicity of manual starting without the use of preheating. All working parts and fuel injection equipment are enclosed but readily



12-man Seafarer inflatable life raft, packed with food and water, ready to go aboard the New Bedford, Mass. scalloper "Vivian Fay", owned by Hanks Supply Co. The raft was sold by Capt. A. J. Pedersen, U. S. distributor, Portland, Me.

accessible. A rotary pump below the oil level supplies oil under pressure to a crankshaft bearings, gear train, and valve rocker gear.

Moffitt Displays Goodrich Bearings

B. F. Goodrich Cutless rubber bearings, distributed nationally by Lucian Q. Moffitt, Inc., Akron, Ohio, were on display for the 35th consecutive year at the National Motor Boat Show. Moffitt carries Cutless bearings in sizes from ¾ inch to 11½ inches shaft size.

Cutless bearings are made of oil resistant rubber, designed to resist wear and heat, and are unaffected by sludges and waste chemicals often found in waters where boats operate. The bearings, lubricated by water, repel gritty abrasive particles.

Vocaline Acquires Hudson American

Vocaline Company of America, Inc., Old Saybrook, Conn., recently announced its acquisition of Hudson American, which was previously a division of Dynamics Corp. of America. Joseph S. Henry will continue as sales manager.

Manufacturers of Class B Citizen's Band two-way radios, intercoms and wireless public address equipment, Vocaline plans to expand the current line of Hudson American marine radiotelephones.

Shown at the New York Motor Boat Show were two new Hudson American models—the Reliance, frequency range 2-6 mc, 8 channels, 65 watts input; which features built-in transistorized power supply for 12 or 32 VDC and 110 VAC; and the 135-watt Empress of the Seas. Both units are extremely small and light weight for their power, and incorporate the latest advances.

Seafarer Life Rafts Contain Supplies

Seafarer Inflatable Life Rafts now being marketed are fitted with emergency packs containing first aid, food and water supplies, and are furnished with a specially designed collapsible wooden box for stowage aboard ship. Made by Dunlop Rubber Co., Ltd., the rafts are distributed in the United States by Capt. A. J. Pedersen, 78 Woodmont St., Portland, Me.

Fishing vessels recently equipped with Seafarer life rafts are the *Molly and Jane*, *Viking*, *Growler*, *Solveig J.*, *Pearl Harbor* and *Capt. Bill II*, all of New Bedford, Mass.; and the Harris Co. draggers *Vandal*, *Andarte*, *Alice M. Doughty II* and *Vagabond* of Portland, Me. Scallopers use a 12-man raft while draggers use 6, 7, 8 and 10-man size rafts.

One of the first small boats to be supplied with a 4-man Seafarer inflatable raft is the gill netter *Jack and Andy*, owned by Capt. Wilho H. Tiensivu of Portland, Me. The smaller size raft is ideal for a boat with limited space, since it can be stowed in a small box in any convenient location.

American LaFrance Powder Extinguisher

The Coast Guard has issued approval of a new portable, dry chemical fire extinguisher, the Protexall Deluxe, manufactured by American LaFrance, Elmira, N. Y. It is designed to replace present carbon tetrachloride and

chlorobromomethane extinguishers no longer approved as new and replacement equipment. Occupying 15 by 4 inches of space, the new extinguisher has, according to reports, the fire-killing power of 4 one-quart carbon tetrachloride or chlorobromomethane units.

Protexall Deluxe will snuff out fires caused by short circuits, spilled gasoline, malfunctioning cooking stoves, spontaneous combustion, etc. The American LaFrance unit can be used at a distance of 8 to 10 feet, and does not give off poisonous fumes or gases, nor does it form foam or liquid. When the extinguisher's handles are squeezed together, powder spurts forth in a stream expelled by 150 pounds of compressed air.

Transistorized Bludworth Instruments

Easily held in one hand, the new Bludworth Marine Positioner, 3-band direction finder (DF 1033), with the new Ferro-Power loop and magnetic compass, is designed to take bearings on radio beacons, shore broadcast stations, and vessels equipped with radio telephones. It also can be used in azimuthal bearings. The portable instrument weighs under 4 pounds and is 10" high and 3" square. It provides visual meter and aural null bearings covering frequency ranges from 200 to 400 kc and 500 to 3500 kc.

Bludworth, located at 1500 Main Ave., Clifton, N. J., is also offering a new portable, all-transistor, utility Depth Indicator ES 134. It is self-contained and weighs about 6½ pounds complete with transducer. Depth readings can be made from 3' to 100' with a plus/minus 2 percent claimed over the full range in direct sunlight.

A fixed cross loop Direction Finder DF 1034 has been designed by Bludworth for commercial applications. The loop can be mounted up to 100' for the receiver, and the unit is available with gyro compass repeater and automatic deviation mechanical compensator as well as built-in electrical compensator.

Three New BJ Marine Bearings

Three new water-lubricated, rubber-lined bearings have just been placed on the market by BJ Marine Bearings, a product of Borg-Warner Corp., Los Angeles, Calif. The new bearings are designed for standard 4½, 5, and 5½ inch shafts, extending application of BJ Marine Products to larger categories.

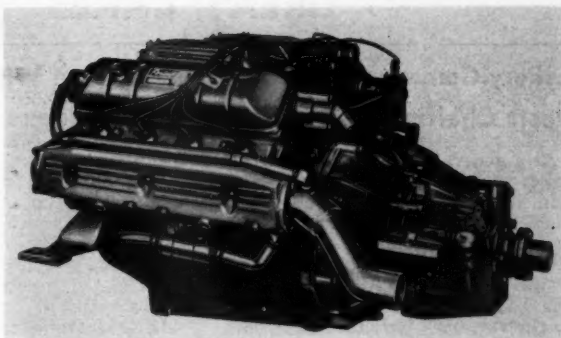
In construction the bearings employ a resilient molded rubber lining that is bonded to a precision-ground brass sleeve. It may be installed without removing struts or stern castings. The bearings utilize the water-lubricated principle, based on the theory that a film of water is the slickest possible lubricant between rubber and metal.

The full-molded bearing liner incorporates a series of flat rubber faces, interspersed with water grooves. As the propeller shaft rotates, a lubricating film of water is drawn between all points of bearing and shaft contact. The resilient rubber yields to any abrasive particles that work between the shaft and bearing. The particles are rolled across the flat bearing face, deposited in the open grooves and washed out by the action of the water.

Spray Develops Starting Fluid Applier

Spray Products Corporation, Camden, N. J. has announced the development of a new applicator for their Spray Starting Fluid. The new Instnstart Applicator was developed to use standard can of pressurized Spray Starting Fluid and as such is claimed to be the only closed system of this kind on the market. The Instnstart Applicator is designed to give a quick start, assure safe and convenient use, fit any engine and be easily installed in a small space.

The applicator administers finely atomized starting fluid into the intake manifold through the closed system, to eliminate wasting of fluid and contaminating the air with vapors. Made to eliminate removal or bypassing of the air cleaner, no dust or dirt may get into the engine cylinder with the starting fluid.



New Graymarine V-8 engine rated 135 hp. at 4000 rpm. and 170 hp. at 4500 rpm. has Velvet Drive hydraulic transmission.

New Graymarine Models Enlarge Line

Two V-8's are featured by Gray Marine Motor Company, Continental Motors Corp. subsidiary, 710 Canton Ave., Detroit, Mich. Manufacturing only marine engines, Gray lists a total of 22 gasoline and 6 Diesel models, available in a variety of gears and accessories, and offered in 17 basic sizes. Fresh water cooling systems are available for most fours and sixes.

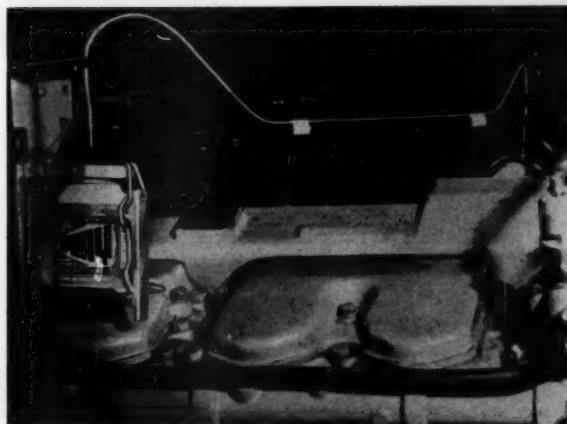
The Fireball V-8's, companions of the 225 hp. Fireball introduced in 1957, offer the Warner Velvet Drive hydraulic gears and top-of engine servicing. The new models are rated 135 hp. at 4000 rpm and 170 hp. at 4400 rpm. They have 250 cubic inch displacement and 3½ x 3¼ inch oversquare bore and stroke. The Velvet Drive is also now available for many Gray fours and sixes.

Gray's new Six-D802, turns 190 hp. from its 802 cubic inch block. All Graymarine Diesels are 4-cycle and include chromium-molybdenum-iron alloy blocks.

Polypoxy Highlights New Pettit Paints

Polypoxy marine paint has been added to the Shipendec line of marine enamels by Pettit Paint Co., Belleville, N. J. and San Leandro, Cal. Polypoxy is prepared by mixing equal parts of pigmented base "A" and hardener "B". After mixing, the polypoxy paints may be applied after one hour and have a usable life of 24 hours. They can be brush applied and have a drying time of 8 hours to sand or recoat. They can be dried at normal temperatures.

There is no adjusting of powder pigments as the color is mixed right into the base. Polypoxy paints have a high gloss, will adhere to any marine surface without special pretreatment and are resistant to abrasion, salt water, and chemicals.



Instnstart applicator for Spray Products starting fluid.

GREAT LAKES

Fishery Commission Elects Chairmen

At a general meeting of the Great Lakes Fishery Commission held in Ann Arbor, Mich. on December 4 and 5, Dr. A. L. Pritchard, Director Conservation Division, Ministry of Fisheries, Ottawa, and past president of the American Fisheries Society, was unanimously elected chairman for the statutory period of two years. Dr. Pritchard has served as vice chairman since the inception of the Commission. L. P. Voight, director of conservation, State of Wisconsin, is the retiring chairman.

At the same meeting, Claude Verduin, Grand Haven, Mich., was elected vice-chairman.

It was revealed at this meeting that the use of chemicals to knock out the dreaded sea lamprey in the Great Lakes has shown highly favorable results in recent tests. In eight streams in Michigan and Wisconsin where two chemicals of similar content were used in September and October, amazing results were shown. Its effectiveness in killing lampreys ranged from 34 to 94 per cent in the various streams. Significantly, it was reported, few sport or other fish were harmed by the chemicals.

Report on Whitefish Studies

A lower minimum size for whitefish taken by Wisconsin commercial fishermen in the Apostle Islands of Lake Superior may come up for discussion soon.

The state's Commercial Fishery Advisory Committee, meeting at Bayfield, recently, heard testimony that the whitefish population in the Apostle Islands area was slow growing, and commercial fishermen must wait about seven years for the whitefish to grow to the legal size of 17 inches.

Nets contain many more fish of a 15 inch size than the 17 inch and larger sizes, indicating that there is a natural mortality before the whitefish reach legal size.

Wisconsin fisheries men have also found, during a three-year series of observations, that 85 to 90 per cent of the whitefish taken commercially at Bay de Noc, off Lake Michigan, were three years old. They point out that should there be a missing year class, few whitefish would be caught, and that a fishery so dependent upon fish of a single age can expect considerable variation in the catch. The fisheries men would much prefer to see a catch made up of more year classes, which would insure a steadier annual catch.

Fishermen Get Good Chub Takes

Notwithstanding frigid weather with ice forming rapidly on all sides, Great Lakes commercial fishermen operating in Lakes Michigan and Huron have been getting heavy hauls of chubs and in many of the same areas yields of perch were commercially sizable.

On Lake Superior, in the bays, commercial bobbers who fish for lake trout have been getting fair results. Herring netters who are still operating in cold weather have been getting fair takes. Many of the boats have laid up for the winter, during which time they will undergo repairs, overhauling of engines, inside painting, replacement of marine parts, while crew members repair and make replacement of netting.

In the Green Bay area, late last month, catches of sheephead, carp and perch and chub have been generally fair to good.

In the Southern part of Lake Michigan, Illinois commercial fishermen were getting fairly good takes of perch and chubs, most of which went to the Chicago market. Good catches of perch and chubs were also reported along the eastern shore of Lake Michigan.

On Lake Huron, catches were generally fair to good in the rough fish varieties with Saginaw Bay producers taking commercial quantities of chub and perch and fair to poor catches of pike species.

During the early part of December, Michigan fishermen produced from Lake Erie some nice catches of perch, yellow pike, sheephead, bullheads, carp and few species otherwise.

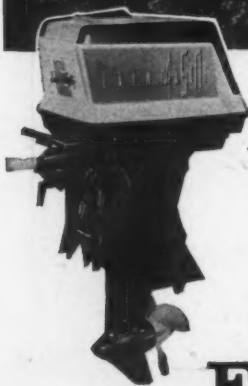
Ohio fishermen, despite the hazard of floating ice forming, have been operating trap nets with fair success. Catches were primarily in perch, sheephead, carp, etc. In the Pennsylvania and New York waters of Lake Erie, some whitefish are being taken.

From Lake Ontario, with mostly Canadian fishermen fishing with regularity, catches of whitefish have been noticeably improved.

Fish Research Under Biologist

A statement was mailed recently from the Wisconsin conservation department headquarters at Madison, to supervisory personnel of the fish management division, listing research projects under the direct supervision of the chief fishery biologist and his staff.

Game research has been under the chief biologist for years but the assistant director of the Conservation Department has kept fish research under area supervision.



Here's the one for rigs that need *real* power... Evinrude's great "Four-Fifty." New, compact V-4 design. 70.7 cu. in. displacement. Delivers 50 solid b.h.p. at 4500 revolutions—easily, smoothly, quietly—in toughest day-in, day-out service. See your Evinrude dealer—he's listed in the yellow pages under "Outboard Motors." Complete range of models to choose from. Evinrude Motors, 4152 N. 27th Street, Milwaukee 16, Wis. A Division of Outboard Marine Corporation. In Canada: Mfd. by Evinrude Motors, Peterborough.

EVINRUDE

quiet outboard motors

Pacific Oysters From Imported Seed

(Continued from page 9)

More Diversified Uses for Oysters

Postwar years have brought about many changes in the industry. The majority of these changes have been a step ahead. A diversification of products has been a big salvation. Less than ten years ago heat processed oyster stew was introduced. Consumer acceptance has been good, and today oyster stew uses around 20% of the Pacific oysters. Frozen oysters are just beginning to stand on their own, with several new packs. Newest of these is the oyster handled like a fish stick, only sliced from a tube to give a shape more like an oyster.

Japanese imports have hit our smoked oyster business. Packing for the smoked product continues utilizing a maximum of 18,000 gallons. The canned market has been relatively stable, using around 30% of our oysters.

The fresh oyster continues to be our main sales item, with 50% of all oysters going to fresh sales. The need for an orderly fresh sales outlet brought about the development of an oyster co-op. It was a long step in the right direction. Its output represents 10% of the total Pacific oyster volume, and membership constitutes about 30% of the industry. The co-op has given many small operators along the shores of Puget Sound the chance to market their oysters in an orderly fashion.

Puget Sound oyster growing operations vary from the rest of the coast. Many refer to it as garden tract oyster-farming. The oyster growers' plots are very small, right in front of their plants, and give an excellent yield. The need for floating equipment is unbelievably small.

Puget Sound accounts for somewhere around 25% of the Pacific oyster pack. Grays Harbor is a large bay, but has little oyster land with 7% or 8% of the oysters possibly coming from there. Willapa Harbor is the largest producer. It accounts for 60-65% of the oyster crop.

Operations on Willapa are such that they have forced operation on to a volume type basis. Consequently smaller operations are falling behind. Water is rough and distances are great, so the need is for a lot of heavy equipment. Oysters must be transplanted on a good part of the bay, which means more cost.

Oregon raises oysters in four bays along the coast. The individual output is small, and the state's total production accounts for 7½% of the Pacific yearly pack.

The big production opportunity today is in the California bays. Several years ago one of the oyster companies made plantings in Humboldt Bay at Eureka and in Drakes Bay north of San Francisco. While the crop has been somewhat below expectations, the output is expected to increase. Actually under present farming methods, Humboldt Bay offers the only area to increase production by any amount. The rest of the coast is almost planted to an optimum crop.

Industry Needs for Future Growth

Our fresh oyster sales are definitely in need of a better organized sales approach. The co-op was a big step in this direction, but does not cover enough of the sales to completely influence the picture. Price alone controls sales. A drop of one cent a jar determines who gets the sale.

Our need for research work is very pressing. The State of Washington has finally started a study on pollution. We are afraid the budget is not enough to finish the job, but are very grateful for the start. Mortality studies, condition factors, and product research are just a few projects that should be carried out in years to come.

Somewhere we must find better mechanical methods for the actual oyster harvesting. Our canneries have the best of equipment. They are as modern as the fish packers, and yet on the bays we still use the same tools as my grandfather did in 1875. The only difference is we have replaced muscle and canvas with Diesel engines. Dredge baskets are the same, just larger. We are now in the position where we need improved harvesting equipment to reduce costs.



Largest All-Nylon Fishing Net
in the world

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"We've already caught 8,000 TONS of
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That's what Capt. Anton Missetich of the
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For information, write to:

Aluminum Purse Boats

(Continued from page 11)

The aluminum alloys used were especially developed by the Aluminum Company of America, 1678K Alcoa Bldg., Pittsburgh, Pa., to withstand corrosion and resist abrasions common to salt water use. The results have been reported as being excellent. A stronger, quieter, faster and more maneuverable boat makes bigger hauls possible than with older wood or steel boats.

All RTC aluminum seine boats are provided with a complete line of standard equipment which includes lashing eyes, cleats, towing eyes and rings, engine foundation, purse line reel and crank, and gasoline tank. Other equipment consists of thwarts, floor foundations, propeller shaft bearings, rudder and tiller, power block foundation if required, and foundation for the tom davit.

To eliminate the necessity of drawing the fish seine entirely by hand, the aluminum boats are equipped with a Puretic hydraulic power block to handle the nets mechanically. The power block is driven by the same engine used to propel the boat, and is a modification of the type used in tuna fishing on the west coast.

The new boats are 36 feet in length, 8½ feet of beam and 4 feet deep amidships. Many are furnished with 6-cylinder Norseman engines equipped with heavy duty gear-type water pumps, Twin Disc front power take-offs, and Wico magnetos. These Norseman Bluefin models develop 105 hp. at 3,400 rpm. and are 230 cubic inch displacement, gasoline engines.

During the first part of the year, Norseman distributor, Hale Wheel and Parts, Inc., Warsaw, Va., delivered 137 units. Ninety-six went to the J. Howard Smith Co. of Port Monmouth, N. J., while the rest were taken by the Virginia Menhaden Products Co., Reedville, Va., as well as Seacoast Fabricators and Haylow Fisheries of Reedville. The Smith Meal Co. with three processing factories at Promised Land, L. I.; Tuckerton, N. J. and Lewes, Delaware, ordered 76.

The engine is located in the forward section and is secured to wooden beds that are bolted to 2 aluminum girders. Fore and aft, between web frames under the engine, rubber insulating couplings protect the shaft to eliminate electrolytic action. The shaft is a 1½ inch Monel, 18' 10" long, with Goodrich Cutless bearings.

Of welded aluminum construction, the new seiners have built-in air tanks to make them unsinkable. The boats are protected from damage while coming along side the steamer or when striking one another, by specially designed Goodyear Tire & Rubber Co. hard rubber fenders. The Wingtype fender used are thick rubber cylinders with integral flanges for bolting. For silent rubbing and bumping work on the purse boats, the fenders are tapered at the ends.

Thirty more boats are now being built to the same specifications for the 1959 season. They are to be delivered to J. Howard Smith Co. of Port Monmouth, N. J. and N. J. Menhaden Products, Inc., Wildwood, N. J.



A New Service by HASKELL & HALL, Inc.

Offered to Boat Owners and Builders

Send us the Size, Pitch, Hand, Bore and Type of the Propeller you want. If it is a Used Wheel you want, we will try and locate it for you, either from our Large Stock on Hand or from Customers' Listings with us. If it is a New Wheel, we have Your Columbian Size in Stock Now. Whether you need a spare wheel or a wheel for every day use, you will find us most happy to help you.

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Hazel B.
Holy Fa

Jane B.
J. B. Jun
J.B.N. (2)
Joanne
Jennie &
Joseph
Joseph

Katie D

Leonard

Magella
Manuel

Advent
Agda W
Althea
Anastas
Annie
Annie

Barbar
Brothe
Brothe

Cap'n
Captai
Carl H
Carol &
Cather
Charles
Christi
Combe
Connie

Falcon
Friend

Ganne
Grayli
Growl

Harmo
Hope

Invad
Ivanh

Jacint
Janet
John
Julia

Katie
Kelba

Laura
Libby
Lorin

JANU

BOAT CATCHES

For Month of December

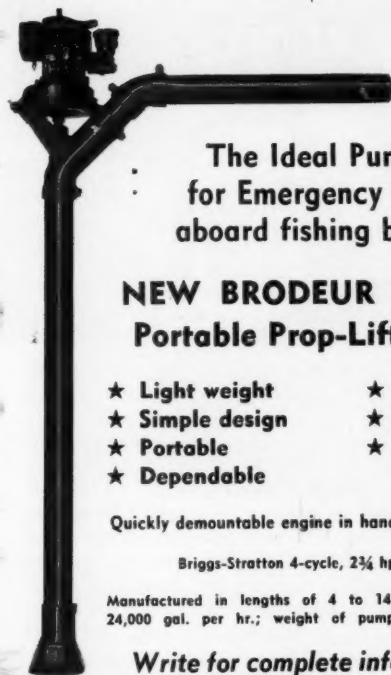
Hailing fares. Figure after name indicates number of trips.

BOSTON (Mass.)

Agatha (2)	88,900	Mary & Joan (2)	85,800
Agatha & Patricia (2)	77,700	M. C. Ballard (3)	115,700
Annie & Lucy (1)	3,100	Michael G. (1)	7,600
Arlington (3)	317,000	Michigan (3)	294,300
Atlantic (2)	76,200	Minnie (2)	188,900
		Mother Frances (3)	64,600
Bay (2)	100,800		
Blue Waters (3)	111,900	Nautilus (2)	64,800
Bonaventure (1)	70,000	New Star (2)	143,800
Bonnie (2)	152,800	Notre Dame (5)	143,000
Brighton (3)	157,500		
Buzz & Billy (3)	73,700	Ohio (2)	156,000
		Olympia LaRosa (3)	53,800
Cambridge (1)	41,000		
Caracara (2)	74,700	Pam Ann (2)	104,000
Carmen & Vince (4)	138,500	Patty Jean (2)	127,500
Charlotte M. (3)	177,000	Phantom (2)	121,500
Clipper (3)	104,700	Phillip & Grace (2)	74,000
Comet (3)	159,700	Pilgrim (3)	122,500
		Plymouth (2)	94,100
Dolphin (2)	59,400	Princess (1)	3,100
Doris F. Amoro (3)	90,200	Puritan (2)	55,100
Eagle (2)	87,700	Racer (3)	220,700
Ethelena (4)	97,000	Raymonde (2)	66,300
		Red Jacket (3)	392,300
Flying Cloud (3)	402,600	Regina Maria (1)	32,000
Four (2)	57,700	Rosa B. (3)	162,400
		Rosie (6)	21,100
Geraldine & Phyllis (2)	44,700	Rush (2)	132,700
Grace & Salvatore (3)	76,300		
		St. Angelo (3)	70,700
Hazel B. (4)	160,800	St. Marco (2)	74,800
Holy Family (2)	40,700	Salvatore (2)	2,700
		Star of the Sea (2)	76,800
Jane B. (2)	138,300	Swallow (3)	119,800
J. B. Junior (2)	132,700		
J.B.N. (2)	48,900	Terra Nova (3)	166,300
Jeanne D'Arc (2)	27,900	Texas (2)	91,200
Jennie & Lucia (1)	35,700	Thomas D. (2)	51,700
Joseph & Lucia (3)	136,800	Thomas Whalen (2)	53,300
Josephine P. II (2)	53,800		
		Villanova (4)	134,900
Katie D. (1)	37,200	Vincie N. (2)	84,900
Leonard & Nancy (1)	40,700	Weymouth (2)	85,600
Magellan (2)	39,500	Wild Duck (2)	198,200
Manuel F. Roderick (2)	83,900	Winchester (2)	183,000
		Wisconsin (3)	231,200

NEW BEDFORD (Mass.)

Adventurer (4)	64,000	Louis A. Thebaud (3)	44,400
Agda W. (3)	30,000	Lynn (4)	42,600
Althea (3)	55,800		
Anastasia E. (4)	58,800	Major J. Casey (4)	60,300
Annie Louise (3)	30,600	Marilyn B. (2)	35,000
Annie M. Jackson (4)	68,600	Marie & Katherine (3)	42,400
		Mary & Gloria (2)	15,500
Barbara M. (4)	81,000	Mary E. D'Eon (2)	30,600
Brother Joe (2)	19,300	Mary J. Landry (3)	60,500
Brother Joseph (1)	6,000	Mary Tapper (2)	39,000
		Midway (3)	51,300
Cap'n Bill II (1)	48,000	Miriam A. (3)	43,700
Captain Deebold (3)	48,500	Molly & Jane (3)	43,700
Carl Henry (3)	73,500		
Carol & Estelle (4)	63,900	Nellie Pet (3)	79,300
Catherine & Mary (3)	77,800	North Sea (3)	55,600
Charles E. Beckman (2)	22,100		
Christina J. (4)	71,300	Our Gang (1)	10,200
Comber (4)	44,200		
Connie F. (3)	62,900	Pauline H. (3)	140,000
		Phyllis J. (1)	6,000
Falcon (4)	72,600	Porpoise (4)	68,800
Friendship (3)	57,300		
		Richard Lance (4)	40,800
Gannet (3)	99,300	Rita B. (1)	17,500
Grayling (1)	12,500	Robert Anne (3)	61,800
Growler (2)	36,000	Robert Joseph (3)	70,800
		Rosalee F. (2)	42,800
Harmony (2)	32,000	Rosemarie V. (2)	28,400
Hope II (2)	56,800	Rush (3)	80,700
Invader (2)	31,000	Sandra Jean (3)	51,800
Ivanhoe (3)	34,300	Shannon (3)	42,000
		Sharon Louise (4)	50,100
Jacintha (2)	60,500	Smilyn (2)	18,700
Janet & Jean (2)	38,800	Solveig J. (2)	79,500
John G. Murley (2)	78,000	Stanley B. Butler (2)	34,500
Julia DaCruz (1)	18,900	Sunbeam (4)	59,200
		Susie O. Carver (3)	40,000
Katie D. (1)	33,000		
Kelbarsam (2)	20,800	Teresa & Jean (3)	63,000
		Two Brothers (1)	5,700
Laura A. II (3)	109,500		
Libby (3)	69,500	Venture I (2)	60,700
Lorine III (3)	33,200	Viking (3)	85,000



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aboard fishing boats

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- ★ Efficient
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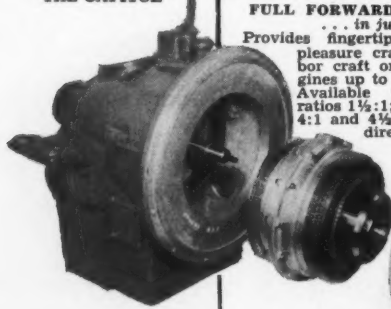
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*Until the engine reaches normal operating temperature it is a cold engine.

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New Bedford Scallop Landings (Lbs.)

Adele K. (2)	11,600	Kingfisher (2)	14,500
Aloha (2)	15,500		
Alpar (1)	9,500	Laura A. (2)	17,900
Amelia (2)	13,500	Lauren Fay (1)	11,000
		Lillian B. (2)	13,300
Babe Sears (1)	9,500	Linus S. Eldridge (3)	24,000
Baltic (2)	21,300	Louise (1)	10,500
Barbara & Gail (2)	14,500		
B. Estelle Burke (2)	19,000	Malene & Marie (2)	16,700
Bobby & Harvey (2)	11,800	Mary Anne (2)	25,000
Brant (2)	16,000	Mary J. Hayes (3)	25,700
Bright Star (2)	21,700	Moonlight (1)	10,800
Camden (2)	22,400	New Bedford (2)	21,200
Catherine (1)	2,500	Newfoundland (2)	12,000
Catherine B. (2)	13,300	Noreen (2)	20,500
Catherine C. (1)	13,000		
Charles S. Ashley (2)	17,800	Pearl Harbor (2)	22,200
Clipper (2)	16,200	Pelican (2)	17,500
Dartmouth (2)	23,500	Ruth Lea (2)	20,500
Debbie & Jo-Ann (2)	16,600	Ruth Moses (1)	12,200
Edgartown (2)	27,200	Sandra & Jean (2)	23,000
Eleanor & Elsie (2)	8,000	Sea Ranger (2)	20,000
Elizabeth N. (2)	13,200	Sippican (2)	24,000
		Snoopy (1)	13,000
Fairhaven (2)	24,500	Stanley M. Fisher (2)	25,800
Flamingo (1)	10,000	Stephen R. (1)	5,000
Fleetwing (2)	18,000		
Florence B. (1)	9,000	Ursula M. Norton (2)	24,800
Geraldine (2)	24,500	Vivian Fay (2)	20,500
Hilda Garston (2)	26,600	Wamsutta (2)	19,700
Josephine & Mary (2)	13,500	Whaling City (2)	11,700

PORTLAND (Me.)

Agnes & Elizabeth (4)	49,000	Medan (1)	200,000
Alice M. Doughty II (7)	80,500	Ocean Life (1)	310,000
Andarte (3)	96,000	Quincy (2)	370,000
Araho (2)	7,000	Theresa R. (2)	164,000
Courier (3)	142,700	Vagabond (4)	50,000
Dorothy & Ethel II (4)	9,500	Vandal (4)	90,000
Elinor & Jean (6)	47,000	Wawenock (1)	243,000
John J. Nagle (1)	93,000	Winthrop (2)	36,500
Lucille B. (1)	12,000		

Scallop Landings (Lbs.)

Sylvester F. Whalen (2)	23,900
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NEW YORK

Andrea G. (3)	60,500	Karina T. (1)	13,500
Austin W. (1)	11,300	Lady of Good Voyage (2)	43,000
Carol-Jack (2)	83,000	Manuel P. Domingoes (1)	14,500
Edith L. Boudreau (2)	30,300	Monte Carlo (1)	7,200
Evelina M. Goulart (3)	73,500	Santa Maria (2)	47,000
Golden Eagle (3)	81,700	Tina B. (3)	49,500
Joseph S. Mattos (2)	53,000		

Scallop Landings (Lbs.)

Beatrice & Ida (2)	12,000	Felicia (2)	16,000
David A. (2)	12,100	Murkegon (1)	2,500
Enterprise (2)	14,300	Norseman (1)	4,100

WOODS HOLE (Mass.)

Arnold (1)	5,900	Louis A. Thebaud (1)	1,960
Bernice (3)	6,800	Madeline (2)	7,600
Carole Ann (6)	21,400	Mary E. D'Eon (2)	13,000
Curlow (1)	7,400	Marie & Katherine (1)	4,200
Falcon (1)	3,400	Phyllis J. (3)	10,900
Famiglia (2)	7,300	Roann (2)	29,400
Frankie & Jeanne (3)	8,400	Smilyn (1)	5,000
Gertrude D. (4)	33,000	Southern Cross (2)	9,700
Ivanhoe (1)	2,900	Three Bells (3)	9,300

Scallop Landings (Lbs.)

Alpar (1)	1,600	Jerry & Jimmy (1)	600
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ROCKLAND (Me.)

Araho (2)	94,000	Rhode Island (4)	31,000
Ethel B. (4)	6,000	Squall (1)	260,000
Flo (4)	87,800	Storm (1)	260,000
Helen Mae II (3)	18,000	Surf (1)	180,000
Little Growler (5)	61,000	Tide (2)	460,000
Ocean (2)	550,000	Wave (1)	250,000

Scallop Landings (Lbs.)

Pocahontas (2)	20,000
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GLOUCESTER (Mass.)

Acme (5)	13,500	Linda B. (7)	18,500
Agatha (2)	9,500	Little Flower (9)	64,900
Anna Guarino (7)	5,800	Lone Ranger (2)	2,000
Annie (2)	4,000	Magellan (1)	18,000
Anthony & Josephine (3)	8,000	Malolo (1)	20,000
Ave Maria (3)	4,000	Margaret Marie (1)	500
Baby Rose (3)	62,000	Marianna II (6)	66,000
Blue Waters (2)	117,000	Mary (3)	2,500
Bonaventure (2)	69,000	Mary Ann (5)	67,000
Bonnie Billow (1)	160,000	Mary Rose (3)	104,000
Bonnie Breaker (2)	174,000	Metacomet (5)	15,000
Cape Cod (6)	9,800	Morning Star (12)	71,000
Carlo & Vince (2)	19,500	Nancy & Maria (5)	12,100
Cigar Joe (5)	79,000	Olympia (2)	55,000
Clinton (1)	2,000	Our Lady of Fatima (3)	246,500
Columbia (1)	125,000	Our Lady of Tears (9)	16,700
Curlew (2)	230,000	Puritan (1)	23,000
Dawn (5)	8,000	Regina Maria (1)	16,000
Dolphin (1)	8,000	Rose & Lucy (4)	53,500
Eagle (1)	90,000	Rosemarie (4)	50,500
Eddie & Lulu M. (8)	9,100	Rosie & Gracie (7)	61,500
Emily H. Brown (2)	332,000	St. Anna Maria (8)	35,900
Estrela (2)	235,000	St. Cabrini (5)	42,500
Eva II (3)	5,500	St. John (5)	3,800
Falcon (1)	2,000	St. Joseph (3)	60,000
Flo (2)	265,000	St. Mary (11)	86,200
Frances R. (3)	29,000	St. Peter (4)	72,500
Gaetano S. (3)	65,000	St. Peter III (6)	32,500
Glacoma (10)	9,600	St. Provenza (9)	9,600
Golden Dawn (4)	17,000	St. Rosalie (5)	123,000
Grace & Salvatore (1)	88,000	St. Stephen (5)	8,000
Holy Name (5)	188,000	St. Terese (6)	55,500
Ida & Joseph (3)	89,000	Salvatore & Grace (4)	16,000
Immaculate Conception (7)	46,500	Santa Lucia (4)	4,500
Irma Virginia (8)	19,800	Sebastiana C. (6)	40,000
Jackie B. (3)	23,000	Serafina N. (8)	50,000
Jennie & Lucia (6)	98,000	Serafina II (5)	108,500
Joseph & Lucia (1)	125,000	Sunlight (1)	160,000
Josie II (4)	9,400	Theresa M. Boudreau (1)	145,000
Judith Lee Rose (1)	140,000	Tipsey Parson (12)	17,200
Kingfisher (1)	160,000	Villanova (1)	210,000
Lady of the Rosary (5)	77,000	Vincie N. (3)	54,500
		Virginia Ann (5)	12,000
		Wild Duck (2)	10,000

STONINGTON (Conn.)

America (4)	21,200	Lt. Thos. Minor (11)	17,500
Averio (3)	2,600	Luann (1)	2,000
Bette Ann (7)	7,900	Marise (12)	10,300
Carl J. (13)	26,600	Mary and Gloria (2)	3,000
Carolyn & Gary (14)	15,300	Old Mystic (15)	29,200
Connie M. (11)	9,900	Our Gang (2)	6,300
Fairweather (15)	40,300	Rita (1)	1,400
Jane Dore (12)	15,800	William B. (11)	24,600

Vessel Safety Programs

(Continued from page 10)

inspect for compliance with minimum requirements for navigation lights, sound signals, life jackets and fire extinguishers. Captains and engineers on fishing motor vessels of less than 200 tons are not required to have licenses, and few of them do. These requirements are hardly commensurate with the encountered hazards to ship and personnel.

Equipment for safety is part of the cost of doing business. Among the devices which might be included are improved controls for winches and spooling devices to feed the cables into the winch. Protective guards are needed around bollard sheaves. Nonskid floor treatment can be applied to slippery surfaces. Vessels could be equipped with emergency controls for engine operation from the pilot house and emergency cut-off controls for fuel lines. Communication and navigation devices such as radiotelephone, radar, loran and depth sounder are aids to safety. Technology will undoubtedly provide new and improved devices.

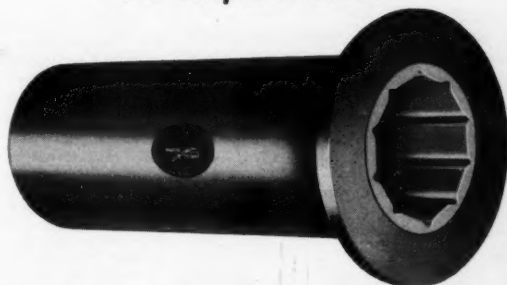
While radiotelephone advice from shore hospitals and Coast Guard helicopter transports have facilitated emergency treatment of the sick and injured, the importance of a properly maintained medicine chest should not be overlooked. Emergency equipment might include self-inflating life rafts, lighted life buoys and high-volume water pumps.

The importance of human failures as a source of trouble must be recognized. Carelessness needs to be replaced by constant alertness and a sense of responsibility for mutual safety.

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Exide Industrial Division—The Electric Storage Battery Co., P. O. Box 8109, Rising Sun & Adams Aves., Philadelphia 20, Pa.

Surrette Storage Battery Co., Salem, Mass.

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E. S. Ritchie & Sons Inc., Pembroke, Mass.

Wilfrid O. White & Sons, Inc., 178 Atlantic Ave., Boston 10, Mass.

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Cating Rope Works, Inc., Maspeth, N. Y.

Columbian Rope Co., Auburn, N. Y.

The Edwin H. Fittler Co., Philadelphia 24, Pa.

New Bedford Cordage Co., 131 Court St., New Bedford, Mass.

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Edo Corporation, College Point, L. I., N. Y.

Radiomarine Products, a Division of RCA, 75 Varick St., New York 13, N. Y.

Raytheon Manufacturing Co., 138 River St., Waltham 54, Mass.

Wilfrid O. White & Sons, Inc., 178 Atlantic Ave., Boston 10, Mass.

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Caterpillar Tractor Co., Peoria, Ill.

Cummins Engine Co., Columbus, Ind.

Detroit Diesel Engine Div., General Motors Corp.,

13400 W. Outer Drive, Detroit 28, Mich.

Enterprise Engine & Machinery Co., 18th and Florida Sts., San Francisco 10, Calif.

Fairbanks, Morse & Co., Chicago, Ill.

Ford Marined Engines, Osco Motors Corp., 3627 N. Lawrence St., Philadelphia 40-AF, Pa.

Gray Marine Motor Co., 646 Canton Ave., Detroit, Mich.

Hercules Motors Corp., 101 Eleventh St., S. E., Canton, Ohio

Lister-Blackstone, Inc., 42-32 21st St., Long Island City 1, N. Y.

H. O. Penn Machinery Co., Inc., East River and 140th St., New York, N. Y.

Perkins Machinery Co. Inc., Exit 53 Route 128, Needham Hts., Mass.; 4 Water St., Fairhaven, Mass.

Petter Engine Div., Orenda Industrial, Inc., 34-14 58th St., Woodside 77, N. Y.

Red Wing Marine Corp., Red Wing, Minn.

Waukesha Motor Co., Waukesha, Wisc.

White Diesel Engine Division, White Motor Co., Springfield, Ohio.

Wolverine Marine Dept., The Coulter & McKenzie Machine Co., 35 Union Ave., Bridgeport 3, Conn.

ENGINES—Gasoline

Burmeister & Wain American Corp., Lathrop Engine Div., Mystic, Conn.

Marine Engine Division, Chrysler Corp., 7700 Russell St., Detroit 11, Mich.

Ford Marined Engines, 3627 N. Lawrence St., Philadelphia 40-AF, Penna.

Gray Marine Motor Co., 646 Canton Ave., Detroit, Mich.

Norseman Marine, 105 Nevada St., Oshkosh, Wisc.

Red Wing Marine Corp., Red Wing, Minn.

ENGINES—Outboard

Evinrude Motors, 4870 N. 27 St., Milwaukee 16, Wisc.

Johnson Motors, 6300 Pershing Rd., Waukegan, Ill.

FISH KNIVES

R. Murphy Co., Ayer, Mass.

FISHING GEAR

The Harris Co., Portland, Me.

Marine Construction & Design Co., 2300 Commodore Way, Seattle 99, Wash.

Westerbeke Fishing Gear Co., Inc., Fish Pier Road, Boston 10, Mass.

FLARE SIGNALS

Kilgore Inc., International Flare Signal Div., Westerville, Ohio

FLEXIBLE HOSE LINES

Aeroquip Corp., 300 South East Ave., Jackson, Mich.

FLOATS

Dale Plastics Corp., 5736 12th St., Detroit 8, Mich.

J. H. Shepherd Son & Co., Elyria, Ohio.

B. F. Goodrich Sponge Products Division, Shelton, Conn.

The Linen Thread Co., Inc., 418 Grand St., Paterson 1, N. J.

GENERATING SETS

Allis-Chalmers, Buda Division, 1135 S. 70th St., Milwaukee 1, Wisc.

Winpower Mfg. Co., Newton, Iowa

Safety Industries, Inc., Box 904, New Haven 4, Conn.

Winpower Mfg. Co., Newton, Iowa

HEAT EXCHANGERS

Sen Dure Products, Inc., 95 E. Union St., Bayshore, N. Y.

HOOCS

O. Mustad & Son, Oslo, Norway.

"Pfueger": Enterprise Mfg. Co., 110 Union St., Akron, Ohio.

INSULATION

"Styrofoam" (Expanded Dow Polystyrene): The Dow Chemical Co., Midland, Mich.

LIFE RAFTS

"Seafarer": Capt. A. J. Pedersen, 78 Woodmont St., Portland, Me.

LOKAN

Edo Corporation, College Point, L. I., N. Y.

Radiomarine Products, a Division of RCA, 75 Varick St., New York 13, N. Y.

MOTOR GENERATORS

Safety Industries, Inc., P. O. Box 904, New Haven 4, Conn.

NETS

W. A. Augur, Inc., 54 Beekman St., New York 38, N. Y.

The Fish Net & Twine Co., Menominee, Mich.

The Linen Thread Co., Inc., 418 Grand St., Paterson 1, N. J.

Moodus Net & Twine, Inc., Moodus, Conn.

Joseph F. Shea, Inc., East Haddam, Conn.

A. M. Starr Net Co., 10 Summit Street, East Hampton, Conn.

Western Trawl & Supply Co., Freeport, Texas.

OIL—Lubricating

The California Oil Co., Perth Amboy, N. J.

Gulf Oil Corp., Gulf Bldg., Pittsburgh, Pa.

Socony Mobil Oil Co., Inc., Marine Sales Dept., 26 Broadway, New York 4, N. Y.

Standard Oil Co. of California, Standard Oil Bldg., San Francisco, Calif.

PAINTS

The Federal Paint Co., Inc., 33 Rector St., New York 6, N. Y.

Henderson & Johnson, Inc., Gloucester, Mass.

International Paint Co., Inc., 21 West St., New York, N. Y.

Pettit Paint Co., Belleville, N. J.

Tarr & Wonslow Ltd., Gloucester, Mass.

C. A. Woolsey Paint & Color Co. Inc., 205 East 42nd St., New York 17, N. Y.

PLYWOOD

Douglas Fir Plywood Assoc., Tacoma 2, Wash.

PRESERVATIVES

Robeson Preservo Co., 214 Merchant St., Port Huron, Mich.

PROPELLERS

Columbian Bronze Corp., Freeport, N. Y.

Federal Propellers, Grand Rapids, Mich.

Ferguson Propeller and Reconditioning Co., 1132 Clinton St., Hoboken, N. J.

Hyde Windlass Co., Bath, Maine.

Michigan Wheel Co., 1501 Buchanan Avenue, S. W., Grand Rapids, Mich.

PROPELLER RECONDITIONING

Columbian Bronze Corp., Freeport, N. Y.

Ferguson Propeller and Reconditioning Co., 1132 Clinton St., Hoboken, N. J.

Haskell & Hall, Inc., 36 Webb St., Salem, Mass.

PROPELLER SHAFTS

The American Brass Co., Waterbury 20, Conn.

The International Nickel Co., Inc., 67 Wall St., New York 5, N. Y.

PUMPS

Brodeur Machine Co., Inc., Pump Div., 62 Wood St., New Bedford, Mass.

Jabco Pump Co., 2031 N. Lincoln St., Burbank, Calif.

Sudbury Laboratory, South Sudbury, Mass.

RADAR

Bendix Aviation Corp., Pacific Div., 475 Fifth Ave., New York 17, N. Y.

Deco Radar Inc., 339 West 25th St., New York 1, N. Y.

Edo Corporation, College Point, L. I. N. Y.

Lavole Laboratories, Inc., Morganville 16, N. J.

Radiomarine Products, a Division of RCA, 75 Varick St., New York 13, N. Y.

RADIO TELEPHONES

Applied Electronics Co., Inc., 213 E. Grand Ave., South San Francisco, Calif.

Bludworth Marine, 92 Gold St., New York 38, N. Y.

Hudson American—Div. of Vocaline Company of America, Inc., Old Saybrook, Conn.

Radiomarine Products, a Division of RCA, 75 Varick St., New York 13, N. Y.

RANGES—Golley

"Shipmate"—Shipmate Stove Division, Souderton, Pa.

"Shipmate" and "Webbperfection" — Ellsha Webb & Son Co., 136 S. Front St., Philadelphia 6, Pa.
Harry C. Weiskittel Co., Inc., 4901 Pulaski Highway, Baltimore 24, Md.

REDUCTION GEAR

Auto Engine Works, Inc., 333 (A) North Hamline Ave., St. Paul 4, Minn.

Snow-Nabstedt Gear Corp., Welton St., Hamden, Conn.

Twin Disc Clutch Co., 1341 Racine St., Racine, Wis.

The Walter Machine Co., Inc., 84 Cambridge Ave., Jersey City 7, N. J.

RUST PREVENTIVES

Sudbury Laboratory, South Sudbury, Mass.

SEARCHLIGHTS

The Carlisle & Finch Co., 4562 W. Mitchell Ave., Cincinnati 32, Ohio

SHIPBUILDERS

Blount Marine Corp., Warren, Rhode Island.

Diesel Engine Sales Inc., St. Augustine, Fla.

Diesel Engine Sales of Ft. Myers, Fla., Inc., 2909 Frierson, Ft. Myers, Fla.

Harvey F. Gamage, So. Bristol, Maine.

General Marine Boatyard, Inc., Fort Myers Beach, Fla.

Gladding-Hearn Shipbuilding Corp., 1 Riverside Ave., Somerset, Mass.

Morehead City Shipbuilding Corp., Morehead City, N. C.

SILENCERS

The Maxim Silencer Co., 126 Homestead Ave., Hartford, Conn.

STARTING FLUID

Spray Products Corp., P. O. Box 844, Camden 1, N. J.

STEERING GEAR

Metal Marine Pilot, 342 Golden Gate Ave., Tacoma, Wash.

STERN BEARINGS

Byron Jackson Tools, Inc. 1900 E. 65th St., Los Angeles 1, Calif.

"Goodrich Cutless": Lucian Q. Moffitt, Inc., Akron 8, Ohio.

TRAWL CABLE METERS

Olympic Instrument Laboratories, Vashon, Wash.

TWINE

Brownell & Co., Inc., Moodus, Conn.

Columbian Rope Co., Auburn, N. Y.

Ross-Matthews Corp., Box 1110, Fall River, Mass.

V-BELTS

Flexible Steel Lacing Co., 4663 Lexington St., Chicago 44, Ill.

VOLTAGE REGULATORS

Safety Industries, Inc., Box 904, New Haven 4, Conn.

WINCHES

Hancock Marine, 1567 No. Main St., Fall River, Mass.

Hathaway Machinery Co., Inc., New Bedford, Mass.

Stroudsburg Engine Works, 62 North 3rd St., Stroudsburg, Penn.

WIRE ROPE

American Steel & Wire Division, United States Steel, Rockefeller Bldg., 614 Superior Ave., Cleveland 13, Ohio.

Hackensack Cable Corp., 110 Orchard St., Hackensack, N. J.

John A. Roebling's Sons Co., Trenton 2, N. J.

Wickwire Spencer Steel Division of The Colorado Fuel & Iron Corp., Palmer, Mass.

FOREIGN BAILINGS

INTERNATIONAL COURT jurisdiction might be acceptable to Iceland in the fishing limits dispute. Reviewing the fishing limits issue before the Reykjavic Social Democratic Society, the Icelandic Foreign Minister intimated that Iceland might be willing to have the dispute taken before the International Court of Justice.

The Minister suggested two ways in which this could be done. The British could charge Iceland with violation of international law or they could invite the Icelanders to agree to submit the matter to the International Court.

The Foreign Minister had previously advised that it was safe to assume that a second Law of the Sea Conference would be held. He said, "The Icelandic delegation . . . has protested the plan to hold a new conference. The delegation maintains that the United Nations Organization must itself find an international solution of the problem. . ."

TRAWLING SPEED and position of net can be given by a new British instrument. The new type log and speed indicator has been designed and manufactured by a British firm primarily for the specialized conditions and demands of trawlers.

The instrument differs from the conventional log in that it is streamed from the side of the ship, being boomed out 5 or 8 feet, so that the rotator is in undisturbed water, level with the bridge, where it cannot become fouled in propeller or gear.

A small register mounted on the inboard end of the boom, transmits speed and distance readings to in-

struments located in the wheelhouse. The boom is fitted with a topping lift and forward guy.

It is claimed that the instrument will indicate when the gear settles on the bottom, when it lifts, when it fouls, etc. the distance repeater registers in tenth of a mile up to 1,000.

RUSSIAN FREEZERSHIPS have fished sardines off the coast of Africa, according to a report of the annual International Refrigeration Institute meeting in Moscow, published in a Norwegian fishery trade paper.

The catches were frozen on board the vessel. The frozen sardines were landed in Russia and canned. The results were so good that additional vessels are expected to participate.

The Russians also reported that they cooled small herring and anchovies immediately after they were caught. Cooling was accomplished by pumping the small fish in ice-cold ocean water through a 4" hose 98 feet long. The process took one minute.

FIVE FISH-PROCESSING trawlers are to be built by West Germany with the aid of special loan funds. The West German Minister for Federal Economic Assets has announced that loans amounting to \$1,432,000 will be provided from the European Recovery Program Special Fund for construction of five trawlers equipped for fish-processing.

The cost of each vessel will be about \$835,000-955,000. The vessel owners will have to raise 20-25 percent of the costs and one-third will be covered from the Special fund. The balance will be financed via open capital market.

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WESTERN TRAWL & SUPPLY COMPANY

HOME OF "WESTERN JIB" TRAWLS (U.S. PAT. 2,816,386)

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BOATS AND SHIPS FOR SALE AND CHARTER

Purse seiners, draggers, trollers, freezer vessels, tugs, barges, water taxis, cargo ships, tankers, passenger ships, dredges, yachts, surplus type vessels and used marine equipment. World-wide contacts. JERRY'S BOAT SALES, 310 West 7th St., San Pedro, Calif.

GOVERNMENT SURPLUS EQUIPMENT LIST

Buy surplus direct from Government at tremendous savings. Boats, motors, gear, machinery, power tools, truck jeep, hundreds others. List \$1.00. Surplus Bulletin, Box 169NAE, East Hartford 8, Conn.

FOR SALE

World War II subchaser *Lynn II* 110' x 19' x 7' twin screw Burmeister & Wain 180 HP engines practically new. Fully equipped with radio telephone, direction finder, radar. Two large holds, one refrigerated. Hull and all equipment excellent condition. Formerly dragger and scalloper converted to cargo. Easily reconverted to fishing. Selling due insufficient cargo work. Perry B. Duryea & Son, Inc., Montauk, L. I., N. Y. MO8-2410.

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SOUTH WIND HEATERS

Mfg. by Stewart-Warner model 978M used on 32 volt system, fuel gasoline, absolutely safe. Cost Government \$385, our price \$25.00 Send for pictures. BLOWERS, 4" explosion proof 6-12-24. volt brand new \$12.00, 32 volt \$19.95. FISHBOAT plans any size \$15.00. Washington K. D. Boat Co., Auburn, Wash.

EQUIPMENT FOR SALE

GM 6-71 GRAY MAINE DIESELS, 1½ - 1, Reverse Gear \$700 up. GM 6-71 TWIN DIESELS SETS, Industrial, Like New! \$1700 set. SOUTHWIND HEATERS, Model 978, 20,000 BTU, 6V, Fan Blower Type, Thermostat, NEW, COMPLETE! Ideal for small craft. Cost U. S. \$361. While they last, \$30 frt. ppd. 360 KW GM 8-268A GENERATOR, Diesel, 220V, DC, Near New! \$6500. 100 KW GM 3-268A GENERATOR, Diesel, 440V AC, rebuilt, \$2650. DRAGGER WINCHES, Large 3 Drum, 2 Gypsy, 20 HP., 115V, Rev. Starter Switch, Spares, NEW! Wt. 5 ton, \$1750. 4½ KW 32V LISTER-BLACKSTONE GENERATOR, DC, NEW \$550. 4 hp. BLOWER FANS, starter, complete, 115V DC, NEW! \$225. LCM LANDING BARGE, 56' x 14' wide. 2 GM 6-71 Twin Screw, gd. condition. In Water, \$4500. YACHT *Oceania*, formerly owned by Howard Hughes, 146' x 24.5' Hull perfect, engine room complete, less engines. Needs cleaning. Excellent buy! \$21,000. Prices F.A.S. Wilmington, Calif. Many others. SUTHERLAND SALES, 2301 E. Anaheim, Wilmington, Calif. HE 5-6366.

FOR SALE: NEW BEDFORD, MASS.

Boat *Anastasia E.* 61' long, 7.3' deep. G. M. engine just overhauled. Boat is now fishing. Eastern rig. Owner retiring. Call Jose Dias, 368 Orchard St., New Bedford, Mass. Wyman 6-5946 after 5 PM.

BOATS FOR SALE

Commercial Fishing Craft: eastern or western: wood or steel, all sizes & prices. Active market for good used marine equipment. "The Right Boat to Suit Your Requirements." BOAT OF THE MONTH: West Coast type fishing vessel. 75' x 20' x 10' Two 6 cyl. GM's on 1 shaft—12 knots. Machinery, wheel house forward: complete electronics: Capacity 150,000 lbs. Excellent condition: heavy construction: ideal combination seiner & dragger \$30,000 or close offer. New England Shore Front Real Estate, Industrial—Residential. EDWIN B. ATHEARN, Marine Broker Tel. Kimball 8-1447. 197 Palmer Ave., Falmouth, Mass.

DRAGGER FOR SALE

42' x 13' x 5' new GM Diesel, wires and nets, Hudson American telephone, Fathometer, now working. Price \$4800. Boat located at foot of Avenue 2 and Knapp St., Sheepshead Bay. Norman Schmidt, 462-76 St., Brooklyn, New York.

HULL FOR SALE

Boat *Antonina*—hull for sale—66' long by 16'. To be used for tug or barge. \$2500. Call WYman 2-1722. New Bedford, Mass.

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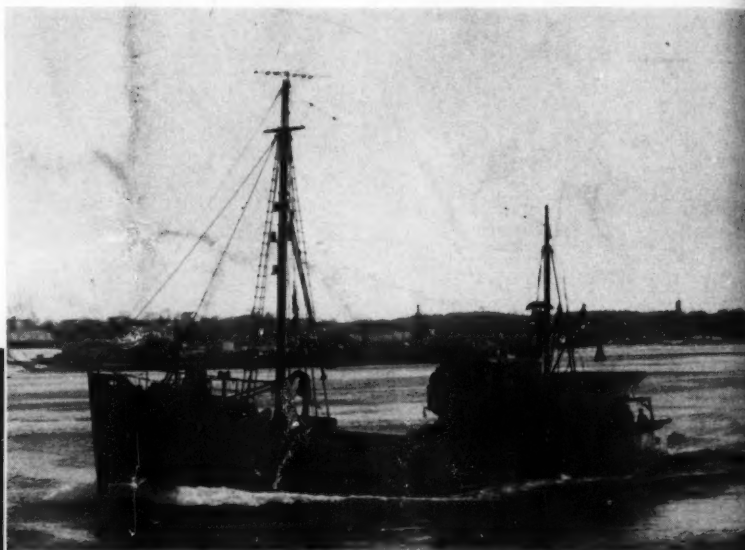
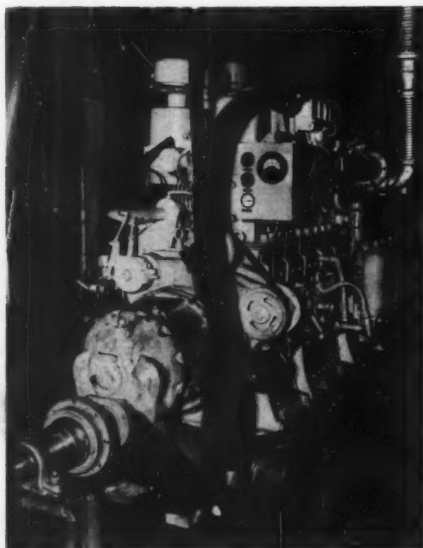
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Turbo-Charged
DIESEL



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Says Capt. Harold Paulson**

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